April 27, 2021

Q1 2021

Financial information

Financial Information
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Key Figures

($ in millions, unless otherwise indicated)	Q1 2021	Q1 2020	CHANGE US$	CHANGE Comparable[1]
Orders	7,756	7,346	6%	1%
Order backlog (end March)	14,750	13,698	8%	2%
Revenues	6,901	6,216	11%	7%
Income from operations	797	373	114%	
Operational EBITA[1]	959	636	51%	40%[2]
as % of operational revenues[1]	13.8%	10.2%	+3.6 pts	
Income from continuing operations, net of tax	551	326	69%	
Net income attributable to ABB	502	376	34%	
Basic earnings per share ($)	0.25	0.18	41%[3]	
Cash flow from operating activities[4]	543	(577)	n.a.	

(1) For a reconciliation of non-GAAP measures see "Supplemental Reconciliations and Definitions" on page 33.
(2) Constant currency (not adjusted for portfolio changes).
(3) EPS growth rates are computed using unrounded amounts.
(4) Cash flow from operating activities includes both continuing and discontinued operations.

($ in millions, unless otherwise indicated)		Q1 2021	Q1 2020	CHANGE US$	CHANGE Local	CHANGE Comparable
Orders	**ABB Group**	**7,756**	**7,346**	**6%**	**1%**	**1%**
	Electrification	3,531	3,121	13%	8%	9%
	Motion	1,917	1,901	1%	-4%	-4%
	Process Automation	1,656	1,757	-6%	-11%	-11%
	Robotics & Discrete Automation	841	811	4%	-3%	-3%
	Corporate and Other (incl. intersegment eliminations)	(189)	(244)			
Order backlog (end March)	**ABB Group**	**14,750**	**13,698**	**8%**	**2%**	**2%**
	Electrification	4,699	4,386	7%	3%	3%
	Motion	3,419	3,259	5%	-1%	-1%
	Process Automation	5,900	5,183	14%	6%	6%
	Robotics & Discrete Automation	1,362	1,454	-6%	-12%	-12%
	Corporate and Other (incl. intersegment eliminations)	(630)	(584)			
Revenues	**ABB Group**	**6,901**	**6,216**	**11%**	**6%**	**7%**
	Electrification	3,140	2,773	13%	8%	11%
	Motion	1,667	1,510	10%	6%	6%
	Process Automation	1,407	1,462	-4%	-9%	-9%
	Robotics & Discrete Automation	853	671	27%	19%	19%
	Corporate and Other (incl. intersegment eliminations)	(166)	(200)			
Income from operations	**ABB Group**	**797**	**373**			
	Electrification	440	199			
	Motion	265	191			
	Process Automation	147	124			
	Robotics & Discrete Automation	82	32			
	Corporate and Other (incl. intersegment eliminations)	(137)	(173)			
Income from operations %	**ABB Group**	**11.5%**	**6.0%**			
	Electrification	14.0%	7.2%			
	Motion	15.9%	12.6%			
	Process Automation	10.4%	8.5%			
	Robotics & Discrete Automation	9.6%	4.8%			
Operational EBITA	**ABB Group**	**959**	**636**	**51%**	**40%**	
	Electrification	511	318	61%	47%	
	Motion	289	230	26%	18%	
	Process Automation	155	144	8%	-1%	
	Robotics & Discrete Automation	105	59	78%	59%	
	Corporate and Other(1) (incl. intersegment eliminations)	(101)	(115)			
Operational EBITA %	**ABB Group**	**13.8%**	**10.2%**			
	Electrification	16.2%	11.4%			
	Motion	17.1%	15.3%			
	Process Automation	11.0%	9.7%			
	Robotics & Discrete Automation	12.4%	8.8%			
Cash flow from operating activities(2)	**ABB Group**	**543**	**(577)**			
	Electrification	319	13			
	Motion	324	152			
	Process Automation	233	(26)			
	Robotics & Discrete Automation	111	66			
	Corporate and Other (incl. intersegment eliminations)	(464)	(601)			
	Discontinued operations	20	(181)			

(1) Corporate and Other includes Stranded corporate costs of $21 million for the three months ended March 31, 2020.

(2) Commencing Q3 2020, taxes and interest previously allocated to each individual operating segment are now fully allocated to Corporate and Other, and commencing Q1 2021, depreciation relating to certain real estate assets, previously reported in Corporate and Other, has been reallocated to the individual operating segments utilizing these assets. Comparatives have been restated to reflect both changes.

Operational EBITA

($ in millions, unless otherwise indicated)	ABB Q1 21	ABB Q1 20	Electrification Q1 21	Electrification Q1 20	Motion Q1 21	Motion Q1 20	Process Automation Q1 21	Process Automation Q1 20	Robotics & Discrete Automation Q1 21	Robotics & Discrete Automation Q1 20
Revenues	**6,901**	**6,216**	**3,140**	**2,773**	**1,667**	**1,510**	**1,407**	**1,462**	**853**	**671**
Foreign exchange/commodity timing differences in total revenues	33	25	10	10	19	(3)	5	17	(3)	(2)
Operational revenues	**6,934**	**6,241**	**3,150**	**2,783**	**1,686**	**1,507**	**1,412**	**1,479**	**850**	**669**
Income from operations	**797**	**373**	**440**	**199**	**265**	**191**	**147**	**124**	**82**	**32**
Acquisition-related amortization	65	65	29	28	13	13	1	1	20	19
Restructuring, related and implementation costs	35	40	17	15	1	2	3	3	5	7
Changes in obligations related to divested businesses	2	–	–	–	–	–	–	–	–	–
Changes in pre-acquisition estimates	6	–	6	–	–	–	–	–	–	–
Gains and losses from sale of businesses	3	1	3	1	–	–	–	–	–	–
Fair value adjustment on assets and liabilities held for sale	–	19	–	19	–	–	–	–	–	–
Acquisition- and divestment-related expenses and integration costs	10	11	6	11	3	–	1	–	–	–
Other income/expense relating to the Power Grids joint venture	17	–	–	–	–	–	–	–	–	–
Certain other non-operational items	12	47	(6)	–	–	5	–	–	–	1
Foreign exchange/commodity timing differences in income from operations	12	80	16	45	7	19	3	16	(2)	–
Operational EBITA	**959**	**636**	**511**	**318**	**289**	**230**	**155**	**144**	**105**	**59**
Operational EBITA margin (%)	**13.8%**	**10.2%**	**16.2%**	**11.4%**	**17.1%**	**15.3%**	**11.0%**	**9.7%**	**12.4%**	**8.8%**

Depreciation and Amortization

($ in millions)	ABB Q1 21	ABB Q1 20	Electrification Q1 21	Electrification Q1 20	Motion Q1 21	Motion Q1 20	Process Automation Q1 21	Process Automation Q1 20	Robotics & Discrete Automation Q1 21	Robotics & Discrete Automation Q1 20
Depreciation[(1)]	144	145	64	68	32	31	19	17	13	12
Amortization	83	82	37	34	14	14	3	2	21	20
including total acquisition-related amortization of:	65	65	29	28	13	13	1	1	20	19

(1) Commencing Q1 2021, depreciation related to certain real estate assets, previously reported in Corporate and Other, has been reallocated to the individual operating segments utilizing these assets. Comparatives have been restated.

Orders received and revenues by region

($ in millions, unless otherwise indicated)	Orders received Q1 21	Orders received Q1 20	CHANGE US$	CHANGE Local	CHANGE Comparable	Revenues Q1 21	Revenues Q1 20	CHANGE US$	CHANGE Local	CHANGE Comparable
Europe	3,102	2,813	10%	2%	3%	2,551	2,371	8%	0%	1%
The Americas	2,247	2,240	0%	0%	0%	2,043	2,092	-2%	-3%	-2%
of which United States	1,679	1,710	-2%	-2%	-2%	1,532	1,615	-5%	-5%	-4%
Asia, Middle East and Africa	2,407	2,230	8%	2%	2%	2,307	1,706	35%	28%	30%
of which China	1,199	898	34%	24%	24%	1,176	667	76%	64%	69%
Intersegment orders/revenues[(1)]	–	63				–	47			
ABB Group	**7,756**	**7,346**	**6%**	**1%**	**1%**	**6,901**	**6,216**	**11%**	**6%**	**7%**

(1) Intersegment orders/revenues during the three months ended March 31, 2020, include sales to the Power Grids business which is presented as discontinued operations and thus these sales are not eliminated from Total orders/revenues.

Consolidated Financial Information

ABB Ltd Interim Consolidated Income Statements (unaudited)

	Three months ended	
($ in millions, except per share data in $)	Mar. 31, 2021	Mar. 31, 2020
Sales of products	5,707	4,993
Sales of services and other	1,194	1,223
Total revenues	**6,901**	**6,216**
Cost of sales of products	(3,924)	(3,575)
Cost of services and other	(709)	(731)
Total cost of sales	**(4,633)**	**(4,306)**
Gross profit	**2,268**	**1,910**
Selling, general and administrative expenses	(1,263)	(1,252)
Non-order related research and development expenses	(293)	(259)
Other income (expense), net	85	(26)
Income from operations	**797**	**373**
Interest and dividend income	11	18
Interest and other finance expense	(55)	(22)
Non-operational pension (cost) credit	50	36
Income from continuing operations before taxes	**803**	**405**
Income tax expense	(252)	(79)
Income from continuing operations, net of tax	**551**	**326**
Income (loss) from discontinued operations, net of tax	(28)	54
Net income	**523**	**380**
Net income attributable to noncontrolling interests	(21)	(4)
Net income attributable to ABB	**502**	**376**
Amounts attributable to ABB shareholders:		
Income from continuing operations, net of tax	530	325
Income (loss) from discontinued operations, net of tax	(28)	51
Net income	502	376
Basic earnings per share attributable to ABB shareholders:		
Income from continuing operations, net of tax	0.26	0.15
Income (loss) from discontinued operations, net of tax	(0.01)	0.02
Net income	0.25	0.18
Diluted earnings per share attributable to ABB shareholders:		
Income from continuing operations, net of tax	0.26	0.15
Income (loss) from discontinued operations, net of tax	(0.01)	0.02
Net income	0.25	0.18
Weighted-average number of shares outstanding (in millions) used to compute:		
Basic earnings per share attributable to ABB shareholders	2,015	2,134
Diluted earnings per share attributable to ABB shareholders	2,034	2,138

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Interim Consolidated Financial Information

ABB Ltd Interim Condensed Consolidated Statements of Comprehensive Income (unaudited)

	Three months ended	
($ in millions)	Mar. 31, 2021	Mar. 31, 2020
Total comprehensive income (loss), net of tax	**325**	**(127)**
Total comprehensive (income) loss attributable to noncontrolling interests, net of tax	(24)	4
Total comprehensive income (loss) attributable to ABB shareholders, net of tax	**301**	**(123)**

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Interim Consolidated Financial Information

ABB Ltd Consolidated Balance Sheets (unaudited)

($ in millions)	Mar. 31, 2021	Dec. 31, 2020
Cash and equivalents	3,466	3,278
Restricted cash	72	323
Marketable securities and short-term investments	1,884	2,108
Receivables, net	6,663	6,820
Contract assets	1,044	985
Inventories, net	4,475	4,469
Prepaid expenses	241	201
Other current assets	637	760
Current assets held for sale and in discontinued operations	241	282
Total current assets	**18,723**	**19,226**
Restricted cash, non-current	300	300
Property, plant and equipment, net	4,034	4,174
Operating lease right-of-use assets	972	969
Investments in equity-accounted companies	1,760	1,784
Prepaid pension and other employee benefits	362	360
Intangible assets, net	1,936	2,078
Goodwill	10,744	10,850
Deferred taxes	812	843
Other non-current assets	577	504
Total assets	**40,220**	**41,088**
Accounts payable, trade	4,453	4,571
Contract liabilities	1,855	1,903
Short-term debt and current maturities of long-term debt	1,336	1,293
Current operating leases	234	270
Provisions for warranties	1,012	1,035
Dividends payable to shareholders	874	–
Other provisions	1,471	1,519
Other current liabilities	3,921	4,181
Current liabilities held for sale and in discontinued operations	601	644
Total current liabilities	**15,757**	**15,416**
Long-term debt	5,619	4,828
Non-current operating leases	769	731
Pension and other employee benefits	1,158	1,231
Deferred taxes	678	661
Other non-current liabilities	1,992	2,025
Non-current liabilities held for sale and in discontinued operations	188	197
Total liabilities	**26,161**	**25,089**
Commitments and contingencies		
Stockholders' equity:		
Common stock, CHF 0.12 par value		
(2,168 million shares issued at March 31, 2021, and December 31, 2020)	188	188
Additional paid-in capital	–	83
Retained earnings	21,582	22,946
Accumulated other comprehensive loss	(4,203)	(4,002)
Treasury stock, at cost		
(144 million and 137 million shares at March 31, 2021, and December 31, 2020, respectively)	(3,876)	(3,530)
Total ABB stockholders' equity	**13,691**	**15,685**
Noncontrolling interests	368	314
Total stockholders' equity	**14,059**	**15,999**
Total liabilities and stockholders' equity	**40,220**	**41,088**

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

ABB Ltd Consolidated Statements of Cash Flows (unaudited)

($ in millions)	Three months ended Mar. 31, 2021	Mar. 31, 2020
Operating activities:		
Net income	523	380
Loss (income) from discontinued operations, net of tax	28	(54)
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	227	227
Pension and other employee benefits	(50)	(49)
Deferred taxes	59	44
Net loss from derivatives and foreign exchange	20	73
Net gain from sale of property, plant and equipment	(11)	(8)
Fair value adjustment on assets and liabilities held for sale	–	19
Share-based payment arrangements	11	7
Other	34	13
Changes in operating assets and liabilities:		
Trade receivables, net	(2)	(61)
Contract assets and liabilities	(90)	(41)
Inventories, net	(168)	(301)
Accounts payable, trade	42	(67)
Accrued liabilities	(76)	(59)
Provisions, net	1	(53)
Income taxes payable and receivable	(50)	(218)
Other assets and liabilities, net	25	(248)
Net cash provided by (used in) operating activities – continuing operations	523	(396)
Net cash provided by (used in) operating activities – discontinued operations	20	(181)
Net cash provided by (used in) operating activities	**543**	**(577)**
Investing activities:		
Purchases of investments	(309)	(242)
Purchases of property, plant and equipment and intangible assets	(142)	(163)
Acquisition of businesses (net of cash acquired) and increases in cost- and equity-accounted companies	(4)	(73)
Proceeds from sales of investments	391	393
Proceeds from maturity of investments	80	–
Proceeds from sales of property, plant and equipment	20	23
Proceeds from sales of businesses (net of transaction costs and cash disposed) and cost- and equity-accounted companies	(2)	(140)
Net cash from settlement of foreign currency derivatives	(61)	(129)
Other investing activities	(8)	(15)
Net cash used in investing activities – continuing operations	(35)	(346)
Net cash used in investing activities – discontinued operations	(44)	(37)
Net cash used in investing activities	**(79)**	**(383)**
Financing activities:		
Net changes in debt with original maturities of 90 days or less	87	1,545
Increase in debt	991	2,247
Repayment of debt	(47)	(180)
Delivery of shares	760	–
Purchase of treasury stock	(1,386)	–
Dividends paid	(844)	–
Dividends paid to noncontrolling shareholders	(1)	(2)
Other financing activities	(36)	(104)
Net cash provided by (used in) financing activities – continuing operations	(476)	3,506
Net cash provided by (used in) financing activities – discontinued operations	–	(8)
Net cash provided by (used in) financing activities	**(476)**	**3,498**
Effects of exchange rate changes on cash and equivalents and restricted cash	(51)	(111)
Net change in cash and equivalents and restricted cash	**(63)**	**2,427**
Cash and equivalents and restricted cash, beginning of period	3,901	3,544
Cash and equivalents and restricted cash, end of period	**3,838**	**5,971**
Supplementary disclosure of cash flow information:		
Interest paid	12	16
Income taxes paid	256	266

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

ABB Ltd Consolidated Statements of Changes in Stockholders’ Equity (unaudited)

($ in millions)	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive loss	Treasury stock	**Total ABB stockholders’ equity**	Non-controlling interests	**Total stockholders’ equity**
Balance at January 1, 2020	**188**	**73**	**19,640**	**(5,590)**	**(785)**	**13,526**	**454**	**13,980**
Adoption of accounting standard update			(78)			**(78)**	(9)	**(87)**
Comprehensive income:								
Net income			376			**376**	4	**380**
Foreign currency translation adjustments, net of tax of $0				(589)		**(589)**	(8)	**(597)**
Effect of change in fair value of available-for-sale securities, net of tax of $3				9		**9**		**9**
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of $25				90		**90**		**90**
Change in derivative instruments and hedges, net of tax of $0				(9)		**(9)**		**(9)**
Total comprehensive loss						**(123)**	**(4)**	**(127)**
Changes in noncontrolling interests		(3)				**(3)**	22	**19**
Dividends to noncontrolling shareholders						**–**	(2)	**(2)**
Dividends to shareholders			(1,758)			**(1,758)**		**(1,758)**
Share-based payment arrangements		8				**8**		**8**
Delivery of shares		(2)			2	**–**		**–**
Balance at March 31, 2020	**188**	**75**	**18,180**	**(6,089)**	**(784)**	**11,570**	**462**	**12,032**
Balance at January 1, 2021	**188**	**83**	**22,946**	**(4,002)**	**(3,530)**	**15,685**	**314**	**15,999**
Comprehensive income:								
Net income			502			**502**	21	**523**
Foreign currency translation adjustments, net of tax of $3				(273)		**(273)**	3	**(270)**
Effect of change in fair value of available-for-sale securities, net of tax of $(3)				(12)		**(12)**		**(12)**
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of $(2)				81		**81**		**81**
Change in derivative instruments and hedges, net of tax of $(1)				3		**3**		**3**
Total comprehensive income						**301**	**24**	**325**
Changes in noncontrolling interests		(37)				**(37)**	34	**(3)**
Dividends to noncontrolling shareholders						**–**	(4)	**(4)**
Dividends to shareholders			(1,730)			**(1,730)**		**(1,730)**
Share-based payment arrangements		11				**11**		**11**
Purchase of treasury stock					(1,300)	**(1,300)**		**(1,300)**
Delivery of shares		(58)	(136)		954	**760**		**760**
Balance at March 31, 2021	**188**	**–**	**21,582**	**(4,203)**	**(3,876)**	**13,691**	**368**	**14,059**

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Consolidated Financial Information

Notes to the Consolidated Financial Information (unaudited)

Note 1
The Company and basis of presentation

ABB Ltd and its subsidiaries (collectively, the Company) together form a leading global technology company, connecting software to its electrification, robotics, automation and motion portfolio to drive performance to new levels.

The Company's Consolidated Financial Information is prepared in accordance with United States of America generally accepted accounting principles (U.S. GAAP) for interim financial reporting. As such, the Consolidated Financial Information does not include all the information and notes required under U.S. GAAP for annual consolidated financial statements. Therefore, such financial information should be read in conjunction with the audited consolidated financial statements in the Company's Annual Report for the year ended December 31, 2020.

The preparation of financial information in conformity with U.S. GAAP requires management to make assumptions and estimates that directly affect the amounts reported in the Consolidated Financial Information. These accounting assumptions and estimates include:

- growth rates, discount rates and other assumptions used to determine impairment of long-lived assets and in testing goodwill for impairment,
- estimates to determine valuation allowances for deferred tax assets and amounts recorded for unrecognized tax benefits,
- assumptions used in determining inventory obsolescence and net realizable value,
- estimates and assumptions used in determining the initial fair value of retained noncontrolling interest and certain obligations in connection with divestments,
- estimates and assumptions used in determining the fair values of assets and liabilities assumed in business combinations,
- assumptions used in the determination of corporate costs directly attributable to discontinued operations,
- estimates of loss contingencies associated with litigation or threatened litigation and other claims and inquiries, environmental damages, product warranties, self-insurance reserves, regulatory and other proceedings,
- estimates used to record expected costs for employee severance in connection with restructuring programs,
- estimates related to credit losses expected to occur over the remaining life of financial assets such as trade and other receivables, loans and other instruments,
- assumptions used in the calculation of pension and postretirement benefits and the fair value of pension plan assets, and
- assumptions and projections, principally related to future material, labor and project-related overhead costs, used in determining the percentage-of-completion on projects, as well as the amount of variable consideration the Company expects to be entitled to.

The actual results and outcomes may differ from the Company's estimates and assumptions.

A portion of the Company's activities (primarily long-term construction activities) has an operating cycle that exceeds one year. For classification of current assets and liabilities related to such activities, the Company elected to use the duration of the individual contracts as its operating cycle. Accordingly, there are accounts receivable, contract assets, inventories and provisions related to these contracts which will not be realized within one year that have been classified as current.

Basis of presentation
In the opinion of management, the unaudited Consolidated Financial Information contains all necessary adjustments to present fairly the financial position, results of operations and cash flows for the reported periods. Management considers all such adjustments to be of a normal recurring nature. The Consolidated Financial Information is presented in United States dollars ($) unless otherwise stated. Due to rounding, numbers presented in the Consolidated Financial Information may not add to the totals provided.

Certain amounts reported in the Interim Consolidated Financial Information for prior periods have been reclassified to conform to the current year's presentation. These changes primarily relate to the reallocation of certain real estate assets, previously reported within Corporate and Other, into the operating segments which utilize the assets.

Note 2
Recent accounting pronouncements

Applicable for current periods
Simplifying the accounting for income taxes
In January 2021, the Company adopted a new accounting standard update, which enhances and simplifies various aspects of the income tax accounting guidance related to intraperiod tax allocations, ownership changes in investments and certain aspects of interim period tax accounting. Depending on the amendment, the adoption was applied on either a retrospective, modified retrospective, or prospective basis. This update does not have a significant impact on the Company's Consolidated Financial Statements.

Applicable for future periods

Facilitation of the effects of reference rate reform on financial reporting

In March 2020, an accounting standard update was issued which provides temporary optional expedients and exceptions to the current guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (LIBOR) and other interbank offered rates to alternative reference rates. This update, along with clarifications outlined in a subsequent update issued in January 2021, can be adopted and applied no later than December 31, 2022, with early adoption permitted. The Company is currently evaluating the impact of adopting this optional guidance on its Consolidated Financial Statements.

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Note 3
Discontinued operations

Divestment of the Power Grids business

On July 1, 2020, the Company completed the sale of 80.1 percent of its Power Grids business to Hitachi Ltd (Hitachi). The transaction was executed through the sale of 80.1 percent of the shares of Hitachi ABB Power Grids Ltd ("Hitachi ABB PG"). Cash consideration received at the closing date was $9,241 million net of cash disposed. Further, for accounting purposes, the 19.9 percent ownership interest retained by the Company is deemed to have been both divested and reacquired at its fair value on July 1, 2020 (see Note 4). Certain amounts relating to the sale price for the Power Grids business are currently estimated or otherwise subject to change in value and, as a result, the Company will record additional adjustments to the gain in future periods which are not expected to have a material impact on the consolidated financial statements.

At the date of the divestment, the Company recorded an initial liability in discontinued operations for estimated future costs and other cash payments of $487 million for various contractual items relating to the sale of the business including required future cost reimbursements payable to Hitachi ABB PG, costs incurred by the Company for the direct benefit of Hitachi ABB PG, and an amount due to Hitachi Ltd in connection with the expected purchase price finalization of the closing debt and working capital balances. From the date of the disposal through March 31, 2021, $77 million of these liabilities had been paid and are reported as reductions in the cash consideration received, of which $44 million was paid during the three months ended March 31, 2021. At March 31, 2021, the remaining amount recorded was $397 million.

Certain entities of the Power Grids business for which the legal process or other regulatory delays resulted in the Company not yet having transferred legal titles to Hitachi have been accounted for as being sold since control of the business as well as all risks and rewards of the business have been fully transferred to Hitachi ABB PG. The proceeds for these entities are included in the cash proceeds described above and certain funds have been placed in escrow pending completion of the transfer process. At March 31, 2021, current restricted cash includes $53 million in respect of these funds.

Upon closing of the sale, the Company entered into various transition services agreements (TSAs). Pursuant to these TSAs, the Company and Hitachi ABB PG provide to each other, on an interim, transitional basis, various services. The services provided by the Company primarily include finance, information technology, human resources and certain other administrative services. Under the current terms, the TSAs will continue for up to 3 years, and can only be extended on an exceptional basis for business-critical services for an additional period which is reasonably necessary to avoid a material adverse impact on the business. In the three months ended March 31, 2021, the Company has recognized within its continuing operations, general and administrative expenses incurred to perform the TSA, offset by $47 million in TSA-related income for such services that is reported in Other income and expense, net.

Discontinued operations

As a result of the sale of the Power Grids business, substantially all Power Grids-related assets and liabilities have been sold. As this divestment represented a strategic shift that would have a major effect on the Company's operations and financial results, the results of operations for this business have been presented as discontinued operations and the assets and liabilities are presented as held for sale and in discontinued operations for all periods presented. Certain of the business contracts in the Power Grids business continue to be executed by subsidiaries of the Company for the benefit/risk of Hitachi ABB PG. Assets and liabilities relating to, as well as the net financial results of, these contracts will continue to be included in discontinued operations until they have been completed or otherwise transferred to Hitachi ABB PG.

Prior to the divestment, interest expense that was not directly attributable to or related to the Company's continuing business or discontinued business was allocated to discontinued operations based on the ratio of net assets to be sold less debt that was required to be paid as a result of the planned disposal transaction to the sum of total net assets of the Company plus consolidated debt. General corporate overhead was not allocated to discontinued operations.

Operating results of the discontinued operations, are summarized as follows:

	Three months ended	
($ in millions)	**Mar. 31, 2021**	**Mar. 31, 2020**
Total revenues	–	1,941
Total cost of sales	–	(1,471)
Gross profit	**–**	**470**
Expenses	(4)	(394)
Change to net gain recognized on sale of the Power Grids business	(24)	–
Income (loss) from operations	**(28)**	**76**
Net interest and other finance expense	–	(3)
Non-operational pension (cost) credit	–	3
Income (loss) from discontinued operations before taxes	**(28)**	**76**
Income tax	–	(22)
Income (loss) from discontinued operations, net of tax	**(28)**	**54**

Of the total Income (loss) from discontinued operations before taxes in the table above, $(28) million and $72 million in the three months ended March 31, 2021 and 2020, respectively, are attributable to the Company, while the remainder is attributable to noncontrolling interests.

Until the date of the divestment, Income from discontinued operations before taxes excluded stranded costs which were previously able to be allocated to the Power Grids operating segment. As a result, for the three months ended March 31, 2020, $21 million of allocated overhead and other management costs, which were previously included in the measure of segment profit for the Power Grids operating segment are reported as part of Corporate and Other. In the table above, Net interest and other finance expense in the three months ended March 31, 2020, included $9 million of interest expense which was recorded on an allocated basis in accordance with the Company's accounting policy election until the divestment date. In addition, as required by U.S. GAAP, subsequent to December 17, 2018, (the date of the original agreement to sell the Power Grids business) the Company has not recorded depreciation or amortization on the property, plant and equipment, and intangible assets reported as discontinued operations.

Included in the reported Total revenues of the Company for the three months ended March 31, 2020, are revenues for sales from the Company's operating segments to the Power Grids business of $47 million, which represent intercompany transactions that, prior to Power Grids being classified as a discontinued operation, were eliminated in the Company's consolidated financial statements (see Note 17). Subsequent to the divestment, sales to Hitachi ABB PG are reported as third-party revenues.

In addition, the Company also has retained obligations (primarily for environmental and taxes) related to other businesses disposed or otherwise exited that qualified as discontinued operations. Changes to these retained obligations are also included in Income (loss) from discontinued operations, net of tax, above.

The major components of assets and liabilities held for sale and in discontinued operations in the Company's Consolidated Balance Sheets are summarized as follows:

($ in millions)	Mar. 31, 2021(1)	Dec. 31, 2020(1)
Receivables, net	235	280
Inventories, net	4	1
Other current assets	2	1
Current assets held for sale and in discontinued operations	**241**	**282**
Accounts payable, trade	187	188
Other liabilities	414	456
Current liabilities held for sale and in discontinued operations	**601**	**644**
Other non-current liabilities	188	197
Non-current liabilities held for sale and in discontinued operations	**188**	**197**

(1) At March 31, 2021 and December 31, 2020, the balances reported as held for sale and in discontinued operations pertain to Power Grids activities and other obligations which will remain with the Company until such time as the obligation is settled or the activities are fully wound down.

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Note 4
Divestments and equity-accounted companies

Investments in equity-accounted companies
In connection with the divestment of its Power Grids business to Hitachi (see Note 3), the Company retained a 19.9 percent interest in the business and obtained an option, exercisable commencing April 2023, granting it the right to require Hitachi to purchase this investment at fair value, subject to a minimum floor price equivalent to a 10 percent discount compared to the price paid for the initial 80.1 percent. The Company has concluded that based on its continuing involvement with the Power Grids business, including membership in its governing board of directors, it has significant influence over Hitachi ABB PG. As a result, the investment (including the value of the option) is accounted for using the equity method.

At the date of the divestment of the Power Grids business, the fair value of Hitachi ABB PG exceeded the book value of the underlying net assets. At March 31, 2021 and December 31, 2020, the reported value of the investment in Hitachi ABB PG includes $1,577 million and $1,597 million, respectively, for the Company's 19.9 percent share of this basis difference. The Company amortizes its share of these differences over the estimated remaining useful lives of the underlying assets that gave rise to this difference, recording the amortization, net of related deferred tax benefit, as a reduction of income from equity accounted companies. As of March 31, 2021, the Company determined that no impairment of its equity accounted investments existed.

The carrying value of the Company's investments in equity-accounted companies and respective percentage of ownership is as follows:

	Ownership as of	Carrying value at	
($ in millions, expect ownership share in %)	March 31, 2021	March 31, 2021	December 31, 2020
Hitachi ABB Power Grids Ltd	19.9%	1,678	1,710
Others		82	74
Total		**1,760**	**1,784**

In the three months ended March 31, 2021 and 2020, the Company recorded its share of the earnings of investees accounted for under the equity method of accounting in Other income (expense), net, as follows:

	Three months ended March 31,	
($ in millions)	2021	2020
Loss from equity-accounted companies, net of taxes	(3)	–
Basis difference amortization (net of deferred income tax benefit)	(32)	–
Loss from equity-accounted companies	**(35)**	**–**

Divestment of the solar inverters business
In February 2020, the Company completed the sale of its solar inverters business for no consideration. Under the agreement, which was reached in July 2019, the Company was required to transfer $143 million of cash to the buyer on the closing date. In addition, payments totaling EUR 132 million ($145 million) are required to be transferred to the buyer from 2020 through 2025. In the year ended December 31, 2019, the Company recorded a loss of $421 million, representing the excess of the carrying value, which includes a loss of $99 million arising from the cumulative translation adjustment, over the estimated fair value of this business. During the three months ended March 31, 2020, a loss of $19 million was included in “Other income (expense), net” for changes in fair value of this business. The loss in 2020 includes the $99 million reclassification from other comprehensive income of the currency translation adjustment related to the business.

The fair value was based on the estimated current market values using Level 3 inputs, considering the agreed-upon sale terms with the buyer. The solar inverters business, which includes the solar inverters business acquired as part of the Power-One acquisition in 2013, was part of the Company’s Electrification segment.

As this divestment does not qualify as a discontinued operation, the results of operations for this business prior to its disposal are included in the Company’s continuing operations for all periods presented.

Including the above loss of $19 million, in the three months ended March 31, 2020, Income from continuing operations before taxes includes net losses of $33 million from the solar inverters business prior to its sale.

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Note 5
Cash and equivalents, marketable securities and short-term investments

Cash and equivalents, marketable securities and short-term investments consisted of the following:

	March 31, 2021					
($ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents and restricted cash	Marketable securities and short-term investments
Changes in fair value recorded in net income						
Cash	2,056			**2,056**	2,056	
Time deposits	1,783			**1,783**	1,782	1
Equity securities	1,586	13		**1,599**		1,599
	5,425	**13**	**–**	**5,438**	**3,838**	**1,600**
Changes in fair value recorded in other comprehensive income						
Debt securities available-for-sale:						
U.S. government obligations	194	11	(2)	**203**		203
European government obligations	10			**10**		10
Corporate	69	3	(1)	**71**		71
	273	**14**	**(3)**	**284**	**–**	**284**
Total	**5,698**	**27**	**(3)**	**5,722**	**3,838**	**1,884**
Of which:						
Restricted cash, current					72	
Restricted cash, non-current					300	

($ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents and restricted cash	Marketable securities and short-term investments
	December 31, 2020					
Changes in fair value recorded in net income						
Cash	2,388			**2,388**	2,388	
Time deposits	1,513			**1,513**	1,513	
Equity securities	1,704	12		**1,716**		1,716
	5,605	**12**	**–**	**5,617**	**3,901**	**1,716**
Changes in fair value recorded in other comprehensive income						
Debt securities available-for-sale:						
U.S. government obligations	274	19		**293**		293
European government obligations	24			**24**		24
Corporate	69	6		**75**		75
	367	**25**	**–**	**392**	**–**	**392**
Total	**5,972**	**37**	**–**	**6,009**	**3,901**	**2,108**
Of which:						
Restricted cash, current					323	
Restricted cash, non-current					300	

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Note 6
Derivative financial instruments

The Company is exposed to certain currency, commodity, interest rate and equity risks arising from its global operating, financing and investing activities. The Company uses derivative instruments to reduce and manage the economic impact of these exposures.

Currency risk
Due to the global nature of the Company's operations, many of its subsidiaries are exposed to currency risk in their operating activities from entering into transactions in currencies other than their functional currency. To manage such currency risks, the Company's policies require its subsidiaries to hedge their foreign currency exposures from binding sales and purchase contracts denominated in foreign currencies. For forecasted foreign currency denominated sales of standard products and the related foreign currency denominated purchases, the Company's policy is to hedge up to a maximum of 100 percent of the forecasted foreign currency denominated exposures, depending on the length of the forecasted exposures. Forecasted exposures greater than 12 months are not hedged. Forward foreign exchange contracts are the main instrument used to protect the Company against the volatility of future cash flows (caused by changes in exchange rates) of contracted and forecasted sales and purchases denominated in foreign currencies. In addition, within its treasury operations, the Company primarily uses foreign exchange swaps and forward foreign exchange contracts to manage the currency and timing mismatches arising in its liquidity management activities.

Commodity risk
Various commodity products are used in the Company's manufacturing activities. Consequently it is exposed to volatility in future cash flows arising from changes in commodity prices. To manage the price risk of commodities, the Company's policies require that its subsidiaries hedge the commodity price risk exposures from binding contracts, as well as at least 50 percent (up to a maximum of 100 percent) of the forecasted commodity exposure over the next 12 months or longer (up to a maximum of 18 months). Primarily swap contracts are used to manage the associated price risks of commodities.

Interest rate risk
The Company has issued bonds at fixed rates. Interest rate swaps and cross-currency swaps are used to manage the interest rate and foreign currency risk associated with certain debt and generally such swaps are designated as fair value hedges. In addition, from time to time, the Company uses instruments such as interest rate swaps, interest rate futures, bond futures or forward rate agreements to manage interest rate risk arising from the Company's balance sheet structure but does not designate such instruments as hedges.

Equity risk
The Company is exposed to fluctuations in the fair value of its warrant appreciation rights (WARs) issued under its management incentive plan. A WAR gives its holder the right to receive cash equal to the market price of an equivalent listed warrant on the date of exercise. To eliminate such risk, the Company has purchased cash-settled call options, indexed to the shares of the Company, which entitle the Company to receive amounts equivalent to its obligations under the outstanding WARs.

Volume of derivative activity
In general, while the Company's primary objective in its use of derivatives is to minimize exposures arising from its business, certain derivatives are designated and qualify for hedge accounting treatment while others either are not designated or do not qualify for hedge accounting.

Foreign exchange and interest rate derivatives

The gross notional amounts of outstanding foreign exchange and interest rate derivatives (whether designated as hedges or not) were as follows:

Type of derivative	Total notional amounts at		
($ in millions)	March 31, 2021	December 31, 2020	March 31, 2020
Foreign exchange contracts	11,229	12,610	14,654
Embedded foreign exchange derivatives	1,313	1,134	975
Cross currency swaps	973	–	–
Interest rate contracts	3,122	3,227	4,195

Derivative commodity contracts

The Company uses derivatives to hedge its direct or indirect exposure to the movement in the prices of commodities which are primarily copper, silver and aluminum. The following table shows the notional amounts of outstanding derivatives (whether designated as hedges or not), on a net basis, to reflect the Company's requirements for these commodities:

Type of derivative	Unit	Total notional amounts at		
		March 31, 2021	December 31, 2020	March 31, 2020
Copper swaps	metric tonnes	42,448	39,390	45,438
Silver swaps	ounces	2,217,821	1,966,677	2,075,488
Aluminum swaps	metric tonnes	7,450	8,112	9,770

Equity derivatives

At March 31, 2021, December 31, 2020, and March 31, 2020, the Company held 18 million, 22 million and 38 million cash-settled call options indexed to ABB Ltd shares (conversion ratio 5:1) with a total fair value of $30 million, $21 million and $7 million, respectively.

Cash flow hedges

As noted above, the Company mainly uses forward foreign exchange contracts to manage the foreign exchange risk of its operations, commodity swaps to manage its commodity risks and cash-settled call options to hedge its WAR liabilities. The Company applies cash flow hedge accounting in only limited cases. In these cases, the effective portion of the changes in their fair value is recorded in "Accumulated other comprehensive loss" and subsequently reclassified into earnings in the same line item and in the same period as the underlying hedged transaction affects earnings. For the three months ended March, 31, 2021 and 2020, there were no significant amounts recorded for cash flow hedge accounting activities.

Fair value hedges

To reduce its interest rate exposure arising primarily from its debt issuance activities, the Company uses interest rate swaps and cross-currency swaps. Where such instruments are designated as fair value hedges, the changes in the fair value of these instruments, as well as the changes in the fair value of the risk component of the underlying debt being hedged, are recorded as offsetting gains and losses in "Interest and other finance expense".

The effect of derivative instruments, designated and qualifying as fair value hedges, on the Consolidated Income Statements was as follows:

Type of derivative designated as a fair value hedge	Three months ended March 31, 2021			
	Gains (losses) recognized in income on derivatives designated as fair value hedges		Gains (losses) recognized in income on hedged item	
($ in millions)	Location		Location	
Interest rate contracts	Interest and other finance expense	(14)	Interest and other finance expense	15
Cross-currency swaps	Interest and other finance expense	(23)	Interest and other finance expense	22
Total		(37)		37

Type of derivative designated as a fair value hedge	Three months ended March 31, 2020			
	Gains (losses) recognized in income on derivatives designated as fair value hedges		Gains (losses) recognized in income on hedged item	
($ in millions)	Location		Location	
Interest rate contracts	Interest and other finance expense	24	Interest and other finance expense	(25)
Total		24		(25)

Derivatives not designated in hedge relationships

Derivative instruments that are not designated as hedges or do not qualify as either cash flow or fair value hedges are economic hedges used for risk management purposes. Gains and losses from changes in the fair values of such derivatives are recognized in the same line in the income statement as the economically hedged transaction.

Furthermore, under certain circumstances, the Company is required to split and account separately for foreign currency derivatives that are embedded within certain binding sales or purchase contracts denominated in a currency other than the functional currency of the subsidiary and the counterparty.

The gains (losses) recognized in the Consolidated Income Statements on derivatives not designated in hedging relationships were as follows:

Type of derivative not designated as a hedge ($ in millions)	**Location**	**Gains (losses) recognized in income** Three months ended March 31, **2021**	**2020**
Foreign exchange contracts	Total revenues	(60)	(134)
	Total cost of sales	(4)	76
	SG&A expenses(1)	7	8
	Non-order related research and development	(1)	(1)
	Interest and other finance expense	(106)	(106)
Embedded foreign exchange contracts	Total revenues	(14)	32
	Total cost of sales	(1)	(4)
Commodity contracts	Total cost of sales	36	(66)
Other	Interest and other finance expense	–	(1)
Total		**(143)**	**(196)**

(1) SG&A expenses represent "Selling, general and administrative expenses".

The fair values of derivatives included in the Consolidated Balance Sheets were as follows:

	March 31, 2021			
	Derivative assets		**Derivative liabilities**	
($ in millions)	**Current in "Other current assets"**	**Non-current in "Other non-current assets"**	**Current in "Other current liabilities"**	**Non-current in "Other non-current liabilities"**
Derivatives designated as hedging instruments:				
Foreign exchange contracts	–	2	1	2
Interest rate contracts	4	65	–	–
Cross currency swaps	–	–	–	61
Cash-settled call options	15	15	–	–
Total	**19**	**82**	**1**	**63**
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	105	21	111	25
Commodity contracts	67	1	10	–
Interest rate contracts	1	–	2	–
Embedded foreign exchange derivatives	11	3	18	13
Total	**184**	**25**	**141**	**38**
Total fair value	**203**	**107**	**142**	**101**

	December 31, 2020			
	Derivative assets		**Derivative liabilities**	
($ in millions)	**Current in "Other current assets"**	**Non-current in "Other non-current assets"**	**Current in "Other current liabilities"**	**Non-current in "Other non-current liabilities"**
Derivatives designated as hedging instruments:				
Foreign exchange contracts	–	1	2	4
Interest rate contracts	6	78	–	–
Cash-settled call options	10	11	–	–
Total	**16**	**90**	**2**	**4**
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	221	22	106	26
Commodity contracts	59	–	7	–
Interest rate contracts	2	–	2	–
Embedded foreign exchange derivatives	10	2	28	16
Total	**292**	**24**	**143**	**42**
Total fair value	**308**	**114**	**145**	**46**

Close-out netting agreements provide for the termination, valuation and net settlement of some or all outstanding transactions between two counterparties on the occurrence of one or more pre-defined trigger events.

Although the Company is party to close-out netting agreements with most derivative counterparties, the fair values in the tables above and in the Consolidated Balance Sheets at March 31, 2021, and December 31, 2020, have been presented on a gross basis.

The Company's netting agreements and other similar arrangements allow net settlements under certain conditions. At March 31, 2021, and December 31, 2020, information related to these offsetting arrangements was as follows:

($ in millions)	March 31, 2021				
Type of agreement or similar arrangement	Gross amount of recognized assets	Derivative liabilities eligible for set-off in case of default	Cash collateral received	Non-cash collateral received	Net asset exposure
Derivatives	296	(151)	–	–	**145**
Total	**296**	**(151)**	**–**	**–**	**145**

($ in millions)	March 31, 2021				
Type of agreement or similar arrangement	Gross amount of recognized liabilities	Derivative liabilities eligible for set-off in case of default	Cash collateral pledged	Non-cash collateral pledged	Net liability exposure
Derivatives	212	(151)	–	–	**61**
Total	**212**	**(151)**	**–**	**–**	**61**

($ in millions)	December 31, 2020				
Type of agreement or similar arrangement	Gross amount of recognized assets	Derivative liabilities eligible for set-off in case of default	Cash collateral received	Non-cash collateral received	Net asset exposure
Derivatives	410	(106)	–	–	**304**
Total	**410**	**(106)**	**–**	**–**	**304**

($ in millions)	December 31, 2020				
Type of agreement or similar arrangement	Gross amount of recognized liabilities	Derivative liabilities eligible for set-off in case of default	Cash collateral pledged	Non-cash collateral pledged	Net liability exposure
Derivatives	147	(106)	–	–	**41**
Total	**147**	**(106)**	**–**	**–**	**41**

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Note 7
Fair values

The Company uses fair value measurement principles to record certain financial assets and liabilities on a recurring basis and, when necessary, to record certain non-financial assets at fair value on a non-recurring basis, as well as to determine fair value disclosures for certain financial instruments carried at amortized cost in the financial statements. Financial assets and liabilities recorded at fair value on a recurring basis include foreign currency, commodity and interest rate derivatives, as well as cash-settled call options and available-for-sale securities. Non-financial assets recorded at fair value on a non-recurring basis include long-lived assets that are reduced to their estimated fair value due to impairments.

Fair value is the price that would be received when selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses various valuation techniques including the market approach (using observable market data for identical or similar assets and liabilities), the income approach (discounted cash flow models) and the cost approach (using costs a market participant would incur to develop a comparable asset). Inputs used to determine the fair value of assets and liabilities are defined by a three-level hierarchy, depending on the nature of those inputs. The Company has categorized its financial assets and liabilities and non-financial assets measured at fair value within this hierarchy based on whether the inputs to the valuation technique are observable or unobservable. An observable input is based on market data obtained from independent sources, while an unobservable input reflects the Company's assumptions about market data.

The levels of the fair value hierarchy are as follows:

Level 1: Valuation inputs consist of quoted prices in an active market for identical assets or liabilities (observable quoted prices). Assets and liabilities valued using Level 1 inputs include exchange-traded equity securities, listed derivatives which are actively traded such as commodity futures, interest rate futures and certain actively traded debt securities.

Level 2: Valuation inputs consist of observable inputs (other than Level 1 inputs) such as actively quoted prices for similar assets, quoted prices in inactive markets and inputs other than quoted prices such as interest rate yield curves, credit spreads, or inputs derived from other observable data by interpolation, correlation, regression or other means. The adjustments applied to quoted prices or the inputs used in valuation models may be both observable and unobservable. In these cases, the fair value measurement is classified as Level 2 unless the unobservable portion of the adjustment or the unobservable input to the valuation model is significant, in which case the fair value measurement would be classified as Level 3. Assets and liabilities valued or disclosed using Level 2 inputs include investments in certain funds, certain debt securities that are not actively traded, interest rate swaps, cross-currency interest rate swaps, commodity swaps, cash-settled call options, forward foreign exchange contracts, foreign exchange swaps and forward rate agreements, time deposits, as well as financing receivables and debt.

Level 3: Valuation inputs are based on the Company's assumptions of relevant market data (unobservable input).

Whenever quoted prices involve bid-ask spreads, the Company ordinarily determines fair values based on mid-market quotes. However, for the purpose of determining the fair value of cash-settled call options serving as hedges of the Company's management incentive plan, bid prices are used.

When determining fair values based on quoted prices in an active market, the Company considers if the level of transaction activity for the financial instrument has significantly decreased or would not be considered orderly. In such cases, the resulting changes in valuation techniques would be disclosed. If the market is considered disorderly or if quoted prices are not available, the Company is required to use another valuation technique, such as an income approach.

Recurring fair value measures
The fair values of financial assets and liabilities measured at fair value on a recurring basis were as follows:

	March 31, 2021			
($ in millions)	**Level 1**	**Level 2**	**Level 3**	**Total fair value**
Assets				
Securities in "Marketable securities and short-term investments":				
Equity securities		1,599		**1,599**
Debt securities—U.S. government obligations	203			**203**
Debt securities—European government obligations	10			**10**
Debt securities—Corporate		71		**71**
Securities in "Other non-current assets":				
Debt securities—U.S. government obligations	80			**80**
Derivative assets—current in "Other current assets"		203		**203**
Derivative assets—non-current in "Other non-current assets"		107		**107**
Total	**293**	**1,980**	**–**	**2,273**
Liabilities				
Derivative liabilities—current in "Other current liabilities"		142		**142**
Derivative liabilities—non-current in "Other non-current liabilities"		101		**101**
Total	**–**	**243**	**–**	**243**

	December 31, 2020			
($ in millions)	**Level 1**	**Level 2**	**Level 3**	**Total fair value**
Assets				
Securities in "Marketable securities and short-term investments":				
Equity securities		1,716		**1,716**
Debt securities—U.S. government obligations	293			**293**
Debt securities—European government obligations	24			**24**
Debt securities—Corporate		75		**75**
Derivative assets—current in "Other current assets"		308		**308**
Derivative assets—non-current in "Other non-current assets"		114		**114**
Total	**317**	**2,213**	**–**	**2,530**
Liabilities				
Derivative liabilities—current in "Other current liabilities"		145		**145**
Derivative liabilities—non-current in "Other non-current liabilities"		46		**46**
Total	**–**	**191**	**–**	**191**

The Company uses the following methods and assumptions in estimating fair values of financial assets and liabilities measured at fair value on a recurring basis:

- Securities in "Marketable securities and short-term investments" and "Other non-current assets": If quoted market prices in active markets for identical assets are available, these are considered Level 1 inputs; however, when markets are not active, these inputs are considered Level 2. If such quoted market prices are not available, fair value is determined using market prices for similar assets or present value techniques, applying an appropriate risk-free interest rate adjusted for non-performance risk. The inputs used in present value techniques are observable and fall into the Level 2 category.

- Derivatives: The fair values of derivative instruments are determined using quoted prices of identical instruments from an active market, if available (Level 1 inputs). If quoted prices are not available, price quotes for similar instruments, appropriately adjusted, or present value techniques, based on available market data, or option pricing models are used. Cash-settled call options hedging the Company's WAR liability are valued based on bid prices of the equivalent listed warrant. The fair values obtained using price quotes for similar instruments or valuation techniques represent a Level 2 input unless significant unobservable inputs are used.

Non-recurring fair value measures

During the three months ended March 31, 2020, the Company recorded a $19 million fair value adjustment for the solar inverters business which met the criteria to be classified as held for sale in June 2019 and was sold in February 2020 (see Note 4 for details).

Apart from the transaction above, there were no additional significant non-recurring fair value measurements during the three months ended March 31, 2021 and 2020.

Disclosure about financial instruments carried on a cost basis

The fair values of financial instruments carried on a cost basis were as follows:

	March 31, 2021				
($ in millions)	Carrying value	Level 1	Level 2	Level 3	Total fair value
Assets					
Cash and equivalents (excluding securities with original maturities up to 3 months):					
Cash	1,684	1,684			**1,684**
Time deposits	1,782		1,782		**1,782**
Restricted cash	72	72			**72**
Restricted cash, non-current	300	300			**300**
Liabilities					
Short-term debt and current maturities of long-term debt (excluding finance lease obligations)	1,311	417	894		**1,311**
Long-term debt (excluding finance lease obligations)	5,447	5,610	84		**5,694**

	December 31, 2020				
($ in millions)	Carrying value	Level 1	Level 2	Level 3	Total fair value
Assets					
Cash and equivalents (excluding securities with original maturities up to 3 months):					
Cash	1,765	1,765			**1,765**
Time deposits	1,513		1,513		**1,513**
Restricted cash	323	323			**323**
Restricted cash, non-current	300	300			**300**
Liabilities					
Short-term debt and current maturities of long-term debt (excluding finance lease obligations)	1,266	497	769		**1,266**
Long-term debt (excluding finance lease obligations)	4,668	4,909	89		**4,998**

The Company uses the following methods and assumptions in estimating fair values of financial instruments carried on a cost basis:

- Cash and equivalents (excluding securities with original maturities up to 3 months), Restricted cash, current and non-current, and Marketable securities and short-term investments (excluding securities): The carrying amounts approximate the fair values as the items are short-term in nature or, for cash held in banks, are equal to the deposit amount.
- Short-term debt and current maturities of long-term debt (excluding finance lease obligations): Short-term debt includes commercial paper, bank borrowings and overdrafts. The carrying amounts of short-term debt and current maturities of long-term debt, excluding finance lease obligations, approximate their fair values.
- Long-term debt (excluding finance lease obligations): Fair values of bonds are determined using quoted market prices (Level 1 inputs), if available. For bonds without available quoted market prices and other long-term debt, the fair values are determined using a discounted cash flow methodology based upon borrowing rates of similar debt instruments and reflecting appropriate adjustments for non-performance risk (Level 2 inputs).

Note 8
Contract assets and liabilities

The following table provides information about Contract assets and Contract liabilities:

($ in millions)	March 31, 2021	December 31, 2020	March 31, 2020
Contract assets	1,044	985	1,038
Contract liabilities	1,855	1,903	1,665

Contract assets primarily relate to the Company's right to receive consideration for work completed but for which no invoice has been issued at the reporting date. Contract assets are transferred to receivables when rights to receive payment become unconditional.

Contract liabilities primarily relate to up-front advances received on orders from customers as well as amounts invoiced to customers in excess of revenues recognized, primarily for long-term projects. Contract liabilities are reduced as work is performed and as revenues are recognized.

The significant changes in the Contract assets and Contract liabilities balances were as follows:

	Three months ended March 31,			
	2021		2020	
($ in millions)	Contract assets	Contract liabilities	Contract assets	Contract liabilities
Revenue recognized, which was included in the Contract liabilities balance at Jan 1, 2021/2020		(497)		(513)
Additions to Contract liabilities - excluding amounts recognized as revenue during the period		493		526
Receivables recognized that were included in the Contract asset balance at Jan 1, 2021/2020	(275)		(276)	

At March 31, 2021, the Company had unsatisfied performance obligations totaling $14,750 million and, of this amount, the Company expects to fulfill approximately 66 percent of the obligations in 2021, approximately 21 percent of the obligations in 2022 and the balance thereafter.

Note 9
Debt

The Company's total debt at March 31, 2021, and December 31, 2020, amounted to $6,955 million and $6,121 million, respectively.

Short-term debt and current maturities of long-term debt
The Company's "Short-term debt and current maturities of long-term debt" consisted of the following:

($ in millions)	March 31, 2021	December 31, 2020
Short-term debt	239	153
Current maturities of long-term debt	1,097	1,140
Total	**1,336**	**1,293**

Short-term debt primarily represented issued commercial paper and short-term bank borrowings from various banks. At March 31, 2021, and December 31, 2020, $167 million and $32 million, respectively, was outstanding under the $2 billion commercial paper program in the United States. No amount was outstanding under the $2 billion Euro-commercial paper program at March 31, 2021, or December 31, 2020.

Long-term debt
The Company's long-term debt at March 31, 2021, and December 31, 2020, amounted to $5,619 million and $4,828 million, respectively.

Outstanding bonds (including maturities within the next 12 months) were as follows:

	March 31, 2021				December 31, 2020			
(in millions)	Nominal outstanding		Carrying value(1)		Nominal outstanding		Carrying value(1)	
Bonds:								
4.0% USD Notes, due 2021	USD	650	$	650	USD	650	$	649
2.25% CHF Bonds, due 2021	CHF	350	$	375	CHF	350	$	403
2.875% USD Notes, due 2022	USD	1,250	$	1,274	USD	1,250	$	1,280
0.625% EUR Instruments, due 2023	EUR	700	$	835	EUR	700	$	875
0.75% EUR Instruments, due 2024	EUR	750	$	901	EUR	750	$	946
0.3% CHF Notes, due 2024	CHF	280	$	296	CHF	280	$	317
3.8% USD Notes, due 2028(2)	USD	383	$	381	USD	383	$	381
1.0% CHF Notes, due 2029	CHF	170	$	180	CHF	170	$	192
0% EUR Notes, due 2030	EUR	800	$	907				–
4.375% USD Notes, due 2042 (2)	USD	609	$	589	USD	609	$	589
Total			**$**	**6,388**			**$**	**5,632**

(1) USD carrying values include unamortized debt issuance costs, bond discounts or premiums, as well as adjustments for fair value hedge accounting, where appropriate.

(2) Prior to completing a cash tender offer in November 2020, the original principal amount outstanding, on each of the 3.8% USD Notes, due 2028, and the 4.375% USD Notes, due 2042, was USD750 million.

In January 2021, the Company issued zero percent notes having a principal amount of EUR 800 million and due in 2030. The Company recorded net proceeds (after underwriting fees) of EUR 791 million (equivalent to $960 million on the date of issuance). In line with the Company's policy of reducing its currency and interest rate exposures, cross-currency interest rate swaps have been used to modify the characteristics of the EUR 800 million Notes, due 2030. After considering the impact of these cross-currency interest rate swaps, the EUR Notes, due 2030, effectively became a floating rate U.S. dollar obligation.

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Note 10
Commitments and contingencies

Contingencies—Regulatory, Compliance and Legal

Regulatory

As a result of an internal investigation, the Company self-reported to the Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States as well as to the Serious Fraud Office (SFO) in the United Kingdom concerning certain of its past dealings with Unaoil and its subsidiaries, including alleged improper payments made by these entities to third parties. In May 2020, the SFO closed its investigation, which it originally announced in February 2017, as the case did not meet the relevant test for prosecution. The Company continues to cooperate with the U.S. authorities as requested. At this time, it is not possible for the Company to make an informed judgment about the outcome of this matter.

Based on findings during an internal investigation, the Company self-reported to the SEC and the DoJ, in the United States, to the Special Investigating Unit (SIU) and the National Prosecuting Authority (NPA) in South Africa as well as to various authorities in other countries potential suspect payments and other compliance concerns in connection with some of the Company's dealings with Eskom and related persons. Many of those parties have expressed an interest in, or commenced an investigation into, these matters and the Company is cooperating fully with them. The Company paid $104 million to Eskom in December 2020 as part of a full and final settlement with Eskom and the Special Investigating Unit relating to improper payments and other compliance issues associated with the Controls and Instrumentation Contract, and its Variation Orders for Units 1 and 2 at Kusile. The Company continues to cooperate fully with the National Prosecuting Authority in South Africa as well as other authorities in their review of the Kusile project. Although the Company believes that there could be an unfavorable outcome in one or more of these ongoing reviews, at this time it is not possible for the Company to make an informed judgment about the possible financial impact.

General

The Company is aware of proceedings, or the threat of proceedings, against it and others in respect of private claims by customers and other third parties with regard to certain actual or alleged anticompetitive practices. Also, the Company is subject to other claims and legal proceedings, as well as investigations carried out by various law enforcement authorities. With respect to the above-mentioned claims, regulatory matters, and any related proceedings, the Company will bear the related costs, including costs necessary to resolve them.

Liabilities recognized

At March 31, 2021, and December 31, 2020, the Company had aggregate liabilities of $98 million and $100 million, respectively, included in "Other provisions" and "Other non-current liabilities", for the above regulatory, compliance and legal contingencies, and none of the individual liabilities recognized was significant. As it is not possible to make an informed judgment on, or reasonably predict, the outcome of certain matters and as it is not possible, based on information currently available to management, to estimate the maximum potential liability on other matters, there could be adverse outcomes beyond the amounts accrued.

Guarantees

General

The following table provides quantitative data regarding the Company's third-party guarantees. The maximum potential payments represent a "worst-case scenario", and do not reflect management's expected outcomes.

Maximum potential payments ($ in millions)	March 31, 2021	December 31, 2020
Performance guarantees	5,815	6,726
Financial guarantees	344	339
Indemnification guarantees[1]	127	177
Total[2]	**6,286**	**7,242**

(1) Certain indemnifications provided to Hitachi in connection with the divestment of Power Grids are without limit.

(2) Maximum potential payments include amounts in both continuing and discontinued operations.

The carrying amount of liabilities recorded in the Consolidated Balance Sheets reflects the Company's best estimate of future payments, which it may incur as part of fulfilling its guarantee obligations. In respect of the above guarantees, the carrying amounts of liabilities at March 31, 2021, and December 31, 2020, amounted to $127 million and $135 million, respectively, which is included in discontinued operations.

The Company is party to various guarantees providing financial or performance assurances to certain third parties. These guarantees, which have various maturities up to 2035, mainly consist of performance guarantees whereby (i) the Company guarantees the performance of a third party's product or service according to the terms of a contract and (ii) as member of a consortium/joint-venture that includes third parties, the Company guarantees not only its own performance but also the work of third parties. Such guarantees may include guarantees that a project will be completed within a specified time. If the third party does not fulfill the obligation, the Company will compensate the guaranteed party in cash or in kind. The original maturity dates for the majority of these performance guarantees range from one to ten years.

In conjunction with the divestment of the high-voltage cable and cables accessories businesses, the Company has entered into various performance guarantees with other parties with respect to certain liabilities of the divested business. At March 31, 2021, and December 31, 2020, the maximum potential payable under these guarantees amounts to $945 million and $994 million, respectively, and these guarantees have various maturities ranging from one to ten years.

The Company retained obligations for financial, performance and indemnification guarantees related to the Power Grids business sold on July 1, 2020 (see Note 3 for details). The performance and financial guarantees have been indemnified by Hitachi, at the same proportion of its ownership in Hitachi ABB Power Grids (80.1 percent). These guarantees, which have various maturities up to 2035, primarily consist of bank guarantees, standby letters of credit, business performance guarantees and other trade-related guarantees, the majority of which have original maturity dates ranging from one to ten years. The maximum amount payable under the guarantees at March 31, 2021, and December 31, 2020, are approximately $4.7 billion and $5.5 billion, respectively, and the carrying amounts of liabilities (recorded in discontinued operations) at March 31,2021, and December 31, 2020 amounted to $127 million and $135 million, respectively.

Commercial commitments

In addition, in the normal course of bidding for and executing certain projects, the Company has entered into standby letters of credit, bid/performance bonds and surety bonds (collectively "performance bonds") with various financial institutions. Customers can draw on such performance bonds in the event that the Company does not fulfill its contractual obligations. The Company would then have an obligation to reimburse the financial institution for amounts paid under the performance bonds. At March 31, 2021, and December 31, 2020, the total outstanding performance bonds aggregated to $4.0 billion and $4.3 billion, respectively, of which $0.3 billion and $0.3 billion, respectively, relate to discontinued operations. There have been no significant amounts reimbursed to financial institutions under these types of arrangements in the three months ended March 31, 2021 and 2020.

Product and order-related contingencies

The Company calculates its provision for product warranties based on historical claims experience and specific review of certain contracts. The reconciliation of the "Provisions for warranties", including guarantees of product performance, was as follows:

($ in millions)	2021	2020
Balance at January 1,	**1,035**	**816**
Net change in warranties due to acquisitions, divestments and liabilities held for sale[1]	1	7
Claims paid in cash or in kind	(54)	(52)
Net increase in provision for changes in estimates, warranties issued and warranties expired	63	28
Exchange rate differences	(33)	(29)
Balance at March 31,	**1,012**	**770**

(1) Includes adjustments to the initial purchase price allocation recorded during the measurement period.

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Note 11
Income taxes

In calculating income tax expense, the Company uses an estimate of the annual effective tax rate based upon the facts and circumstance known at each interim period. On a quarterly basis, the actual effective tax rate is adjusted, as appropriate, based upon changed facts and circumstances, if any, as compared to those forecasted at the beginning of the year and each interim period thereafter.

The effective tax rate of 31.4 percent in the three months ended March 31, 2021, was higher than the effective tax rate of 19.5 percent in three months ended March 31, 2020, primarily because 2020 included a net benefit from a favorable resolution of an uncertain tax position partially offset by increases to the valuation allowance in certain countries.

Note 12
Employee benefits

The Company operates defined benefit pension plans, defined contribution pension plans, and termination indemnity plans, in accordance with local regulations and practices. These plans cover a large portion of the Company's employees and provide benefits to employees in the event of death, disability, retirement, or termination of employment. Certain of these plans are multi-employer plans. The Company also operates other postretirement benefit plans including postretirement health care benefits, and other employee-related benefits for active employees including long-service award plans. The measurement date used for the Company's employee benefit plans is December 31. The funding policies of the Company's plans are consistent with the local government and tax requirements.

The following tables include amounts relating to defined benefit pension plans and other postretirement benefits for both continuing and discontinued operations.

Net periodic benefit cost of the Company's defined benefit pension and other postretirement benefit plans consisted of the following:

($ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
Three months ended March 31,	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
Operational pension cost:						
Service cost	15	22	10	27	–	–
Operational pension cost	**15**	**22**	**10**	**27**	**–**	**–**
Non-operational pension cost (credit):						
Interest cost	(1)	–	18	32	–	1
Expected return on plan assets	(29)	(31)	(47)	(63)	–	–
Amortization of prior service cost (credit)	(2)	(4)	–	1	–	(1)
Amortization of net actuarial loss	–	2	17	25	–	(1)
Curtailments, settlements and special termination benefits	–	–	(6)	–	–	–
Non-operational pension cost (credit)	**(32)**	**(33)**	**(18)**	**(5)**	**–**	**(1)**
Net periodic benefit cost (credit)	**(17)**	**(11)**	**(8)**	**22**	**–**	**(1)**

The components of net periodic benefit cost other than the service cost component are included in the line "Non-operational pension (cost) credit" in the income statement. Net periodic benefit cost includes $12 million for the three months ended March 31, 2020, related to discontinued operations.

Employer contributions were as follows:

($ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
Three months ended March 31,	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
Total contributions to defined benefit pension and other postretirement benefit plans	15	24	(3)	21	1	1
Of which, discretionary contributions to defined benefit pension plans	–	–	(9)	–	–	–

The Company expects to make contributions totaling approximately $165 million and $8 million to its defined pension plans and other postretirement benefit plans, respectively, for the full year 2021.

Note 13
Stockholder's equity

At the Annual General Meeting of Shareholders (AGM) on March 25, 2021, shareholders approved the proposal of the Board of Directors to distribute 0.80 Swiss francs per share to shareholders. The declared dividend amounted to $1,730 million, with the Company disbursing a portion in March and the remaining amounts in April.

In March 2021, the Company completed its initial share buyback program which was launched in July 2020. The share buyback program was executed on a second trading line on the SIX Swiss Exchange. Through this buyback program, the Company purchased a total of approximately 129 million shares for approximately $3.5 billion, of which 20 million shares were purchased in the first quarter of 2021 (resulting in an increase in Treasury stock of $628 million). At the AGM on March 25, 2021, shareholders approved the cancellation of 115 million of the shares purchased under this buyback program.

In addition to the initial share buyback program, the Company purchased 22 million of its own shares on the open market in the first quarter of 2021, mainly for use in connection with its employee share plans, resulting in an increase in Treasury stock of $672 million.

During the first quarter of 2021, the Company delivered, out of treasury stock, 35 million shares in connection with its Management Incentive Plan.

In March 2021, the Company announced a follow-up share buyback program of up to $4.3 billion. This buyback program, which was launched in April 2021, is being executed on a second trading line on the SIX Swiss Exchange and is planned to run until the Company's AGM in March 2022. At the March 2022 AGM, the Company intends to request shareholder approval to cancel the shares purchased through this follow-up share buyback program as well as those shares purchased under the initial share buyback program that were not proposed for cancellation at the Company's AGM in March 2021.

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Note 14
Earnings per share

Basic earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the period. Diluted earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the period, assuming that all potentially dilutive securities were exercised, if dilutive. Potentially dilutive securities comprise outstanding written call options, and outstanding options and shares granted subject to certain conditions under the Company's share-based payment arrangements.

Basic earnings per share

	Three months ended March 31,	
($ in millions, except per share data in $)	**2021**	**2020**
Amounts attributable to ABB shareholders:		
Income from continuing operations, net of tax	530	325
Income (loss) from discontinued operations, net of tax	(28)	51
Net income	**502**	**376**
Weighted-average number of shares outstanding (in millions)	**2,015**	**2,134**
Basic earnings per share attributable to ABB shareholders:		
Income from continuing operations, net of tax	0.26	0.15
Income (loss) from discontinued operations, net of tax	(0.01)	0.02
Net income	**0.25**	**0.18**

Diluted earnings per share

	Three months ended March 31,	
($ in millions, except per share data in $)	**2021**	**2020**
Amounts attributable to ABB shareholders:		
Income from continuing operations, net of tax	530	325
Income (loss) from discontinued operations, net of tax	(28)	51
Net income	**502**	**376**
Weighted-average number of shares outstanding (in millions)	2,015	2,134
Effect of dilutive securities:		
Call options and shares	19	4
Adjusted weighted-average number of shares outstanding (in millions)	**2,034**	**2,138**
Diluted earnings per share attributable to ABB shareholders:		
Income from continuing operations, net of tax	0.26	0.15
Income (loss) from discontinued operations, net of tax	(0.01)	0.02
Net income	**0.25**	**0.18**

Note 15
Reclassifications out of accumulated other comprehensive loss

The following table shows changes in “Accumulated other comprehensive loss” (OCI) attributable to ABB, by component, net of tax:

($ in millions)	Foreign currency translation adjustments	Unrealized gains (losses) on available-for-sale securities	Pension and other postretirement plan adjustments	Derivative instruments and hedges	Total OCI
Balance at January 1, 2020	**(3,450)**	**10**	**(2,145)**	**(5)**	**(5,590)**
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	(696)	9	74	(19)	**(632)**
Amounts reclassified from OCI	99	–	16	10	**125**
Total other comprehensive (loss) income	**(597)**	**9**	**90**	**(9)**	**(507)**
Less:					
Amounts attributable to noncontrolling interests	(8)	–	–	–	**(8)**
Balance at March 31, 2020	**(4,039)**	**19**	**(2,055)**	**(14)**	**(6,089)**

($ in millions)	Foreign currency translation adjustments	Unrealized gains (losses) on available-for-sale securities	Pension and other postretirement plan adjustments	Derivative instruments and hedges	Total OCI
Balance at January 1, 2021	**(2,460)**	**17**	**(1,556)**	**(3)**	**(4,002)**
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	(270)	(11)	56	12	**(213)**
Amounts reclassified from OCI	–	(1)	25	(9)	**15**
Total other comprehensive (loss) income	**(270)**	**(12)**	**81**	**3**	**(198)**
Less:					
Amounts attributable to noncontrolling interests	3	–	–	–	**3**
Balance at March 31, 2021	**(2,733)**	**5**	**(1,475)**	**–**	**(4,203)**

The following table reflects amounts reclassified out of OCI in respect of Foreign currency translation adjustments and Pension and other postretirement plan adjustments:

($ in millions)		**Three months ended March 31,**	
Details about OCI components	**Location of (gains) losses reclassified from OCI**	**2021**	**2020**
Foreign currency translation adjustments:			
Translation loss on solar inverters business (see Note 4)	Other income (expense), net	–	99
Pension and other postretirement plan adjustments:			
Amortization of prior service cost	Non-operational pension (cost) credit(1)	(2)	(4)
Amortization of net actuarial loss	Non-operational pension (cost) credit(1)	11	26
Total before tax		**9**	**22**
Tax	Provision for taxes	16	(6)
Amounts reclassified from OCI		**25**	**16**

(1) Amounts include total credits of $3 million for the three months ended March 31, 2020, reclassified from OCI to Income from discontinued operations.

The amounts in respect of Unrealized gains (losses) on available-for-sale securities and Derivative instruments and hedges were not significant for the three months ended March 31, 2021 and 2020.

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Note 16
Restructuring and related expenses

OS program

From December 2018 to December 2020, the Company executed a two-year restructuring program with the objective to simplify the Company's business model and structure through the implementation of a new organizational structure driven by its businesses. The program resulted in the elimination of the country and regional structures within the previous matrix organization, including the elimination of the three regional Executive Committee roles. The operating businesses are now responsible for both their customer-facing activities and business support functions, while the remaining Group-level corporate activities primarily focus on Group strategy, portfolio and performance management and capital allocation.

As of December 31, 2020, the Company had incurred substantially all costs related to the OS program.

Liabilities associated with the OS program are included primarily in Other provisions. The following table shows the activity from the beginning of the program to March 31, 2021, by expense type:

($ in millions)	Employee severance costs	Contract settlement, loss order and other costs	Total
Liability at January 1, 2018	**–**	**–**	**–**
Expenses	**65**	**–**	**65**
Liability at December 31, 2018	**65**	**–**	**65**
Expenses	111	1	**112**
Cash payments	(44)	(1)	**(45)**
Change in estimates	(30)	–	**(30)**
Exchange rate differences	(3)	–	**(3)**
Liability at December 31, 2019	**99**	**–**	**99**
Expenses	119	17	**136**
Cash payments	(91)	(15)	**(106)**
Change in estimates	(10)	–	**(10)**
Exchange rate differences	4	–	**4**
Liability at December 31, 2020	**121**	2	**123**
Expenses	8	1	**9**
Cash payments	(29)	(1)	**(30)**
Change in estimates	(3)	–	**(3)**
Exchange rate differences	(4)	–	**(4)**
Liability at March 31, 2021	**93**	2	**95**

The following table outlines the costs incurred in the three months ended March 31, 2020, and the cumulative net costs incurred to December 31, 2020:

($ in millions)	Net cost incurred Three months ended March 31, 2020	Cumulative net cost incurred up to December 31, 2020
Electrification	2	85
Motion	–	25
Process Automation (1)	–	61
Robotics & Discrete Automation	6	18
Corporate and Other	10	114
Total	**18**	**303**

(1) Formerly named the Industrial Automation operating segment.

The Company recorded the following expenses, net of changes in estimates, under this program:

($ in millions)	Three months ended March 31, 2020(1)	Cumulative costs incurred up to December 31, 2020
Employee severance costs	15	255
Estimated contract settlement, loss order and other costs	2	18
Inventory and long-lived asset impairments	1	30
Total	**18**	**303**

(1) Of which $3 million was recorded in Total cost of sales and $15 million in Other Income (expense), net.

Other restructuring-related activities
In addition, during 2021 and 2020, the Company executed various other restructuring-related activities and incurred the following charges, net of changes in estimates:

	Three months ended March 31,	
($ in millions)	**2021**	**2020**
Employee severance costs	20	4
Estimated contract settlement, loss order and other costs	9	1
Inventory and long-lived asset impairments	–	1
Total	**29**	**6**

Expenses associated with these activities are recorded in the following line items in the Consolidated Income Statements:

	Three months ended March 31,	
($ in millions)	**2021**	**2020**
Total cost of sales	14	–
Selling, general and administrative expenses	2	5
Other income (expenses), net	13	1
Total	**29**	**6**

At March 31, 2021, and December 31, 2020, $222 million and $233 million, respectively, were recorded for other restructuring-related liabilities and were included primarily in Other provisions.

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Note 17
Operating segment data

The Chief Operating Decision Maker (CODM) is the Chief Executive Officer. The CODM allocates resources to and assesses the performance of each operating segment using the information outlined below. The Company is organized into the following segments, based on products and services: Electrification, Motion, Process Automation, and Robotics & Discrete Automation. The remaining operations of the Company are included in Corporate and Other.

Effective January 1, 2021, the Industrial Automation segment was renamed the Process Automation segment. In addition, the Company changed its method of allocating real estate assets to its operating segments whereby these assets are now accounted for directly in the individual operating segment which utilizes the asset rather than as a cost recharged to the operating segment from Corporate and Other. As a result, while this change had no impact on segment revenues or profits (Operational EBITA), certain real estate assets previously reported within Corporate and Other have been allocated to the total segment assets of each individual operating segment. Total assets at December 31, 2020, has been recast to reflect this allocation change.

A description of the types of products and services provided by each reportable segment is as follows:

- Electrification: manufactures and sells electrical products and solutions which are designed to provide safe, smart and sustainable electrical flow from the substation to the socket. The portfolio of increasingly digital and connected solutions includes electric vehicle charging infrastructure, renewable power solutions, modular substation packages, distribution automation products, switchboard and panelboards, switchgear, UPS solutions, circuit breakers, measuring and sensing devices, control products, wiring accessories, enclosures and cabling systems and intelligent home and building solutions, designed to integrate and automate lighting, heating, ventilation, security and data communication networks. The products and services are delivered through six operating Divisions: Distribution Solutions, Smart Power, Smart Buildings, E-mobility, Installation Products and Power Conversion.

- Motion: manufactures and sells drives, motors, generators, traction converters and mechanical power transmission products that are driving the low-carbon future for industries, cities, infrastructure and transportation. These products, digital technology and related services enable industrial customers to increase energy efficiency, improve safety and reliability, and achieve precise control of their processes. Building on over 130 years of cumulative experience in electric powertrains, the Business Area combines domain expertise and technology to deliver the optimum solution for a wide range of applications in all industrial segments. In addition, the Business Area, along with partners, has an unmatched global service presence. These products and services are delivered through eight operating Divisions: Large Motors and Generators, IEC LV Motors, NEMA Motors, Drive Products, System Drives, Service, Traction and Mechanical Power Transmission.

- Process Automation: develops and sells a broad range of industry-specific, integrated automation and electrification systems and solutions, as well as digital solutions, lifecycle services and artificial intelligence applications for the process and hybrid industries. Products and solutions include process and discrete control technologies, advanced process control software and manufacturing execution systems, sensing, measurement and analytical instrumentation, electric ship propulsion systems and large turbochargers. In addition, the Business Area offers a comprehensive range of services ranging from repair to advanced services such as remote monitoring, preventive maintenance, asset performance management and cybersecurity services. The products and services are delivered through five operating Divisions: Energy Industries, Process Industries, Marine & Ports, Turbocharging, and Measurement & Analytics.

- Robotics & Discrete Automation: delivers its products, solutions and services through two operating Divisions: Robotics and Machine Automation. Robotics includes: industrial robots, software, robotic solutions and systems, field services, spare parts, and digital services. Machine Automation specializes in solutions based on its programmable logic controllers (PLC), industrial PCs (IPC), servo motion, transport systems and machine vision. Both Divisions offer engineering and simulation software as well as a comprehensive range of digital solutions.

Corporate and Other: includes headquarters, the Company's corporate real estate activities, Corporate Treasury Operations, historical operating activities of certain divested businesses and other non-core operating activities.

The primary measure of profitability on which the operating segments are evaluated is Operational EBITA, which represents income from operations excluding:

- Amortization expense on intangibles arising upon acquisition (acquisition-related amortization),
- restructuring, related and implementation costs,
- changes in the amount recorded for obligations related to divested businesses occurring after the divestment date (changes in obligations related to divested businesses),
- changes in estimates relating to opening balance sheets of acquired businesses (changes in pre-acquisition estimates),
- gains and losses from sale of businesses (including fair value adjustment on assets and liabilities held for sale),
- acquisition- and divestment-related expenses and integration costs,
- other income/expense relating to the Power Grids joint venture,
- certain other non-operational items, as well as
- foreign exchange/commodity timing differences in income from operations consisting of: (a) unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives), (b) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (c) unrealized foreign exchange movements on receivables/payables (and related assets/liabilities).

Certain other non-operational items generally includes certain regulatory, compliance and legal costs, certain asset write downs/impairments and certain other fair value changes, as well as other items which are determined by management on a case-by-case basis.

The CODM primarily reviews the results of each segment on a basis that is before the elimination of profits made on inventory sales between segments. Segment results below are presented before these eliminations, with a total deduction for intersegment profits to arrive at the Company's consolidated Operational EBITA. Intersegment sales and transfers are accounted for as if the sales and transfers were to third parties, at current market prices.

The following tables present disaggregated segment revenues from contracts with customers, Operational EBITA, and the reconciliations of consolidated Operational EBITA to Income from continuing operations before taxes for the three months ended March 31, 2021 and 2020, as well as total assets at March 31, 2021, and December 31, 2020.

	Three months ended March 31, 2021					
($ in millions)	**Electrification**	**Motion**	**Process Automation**	**Robotics & Discrete Automation**	**Corporate and Other**	**Total**
Geographical markets						
Europe	1,100	469	563	418	1	**2,551**
The Americas	1,058	588	290	106	1	**2,043**
of which: United States	800	494	163	75	–	**1,532**
Asia, Middle East and Africa	929	503	542	326	7	**2,307**
of which: China	488	264	175	249	–	**1,176**
	3,087	**1,560**	**1,395**	**850**	**9**	**6,901**
Product type						
Products	2,620	1,349	382	526	7	**4,884**
Systems	269	–	348	204	2	**823**
Services and other	198	211	665	120	–	**1,194**
	3,087	**1,560**	**1,395**	**850**	**9**	**6,901**
Third-party revenues	3,087	1,560	1,395	850	9	**6,901**
Intersegment revenues	53	107	12	3	(175)	**–**
Total revenues[(2)]	**3,140**	**1,667**	**1,407**	**853**	**(166)**	**6,901**

($ in millions)	Three months ended March 31, 2020 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Total
Geographical markets						
Europe	964	451	577	353	26	**2,371**
The Americas	1,031	569	390	103	–	**2,092**
of which: United States	801	492	247	70	–	**1,610**
Asia, Middle East and Africa	678	368	459	198	3	**1,706**
of which: China	283	154	110	119	–	**666**
	2,673	**1,388**	**1,426**	**654**	**28**	**6,169**
Product type						
Products	2,362	1,198	306	387	25	**4,278**
Systems	112	–	396	157	3	**668**
Services and other	199	190	724	110	–	**1,223**
	2,673	**1,388**	**1,426**	**654**	**28**	**6,169**
Third-party revenues	2,673	1,388	1,426	654	28	**6,169**
Intersegment revenues[1]	100	122	36	17	(228)	**47**
Total revenues[2]	**2,773**	**1,510**	**1,462**	**671**	**(200)**	**6,216**

(1) Intersegment revenues during three months ended March 31, 2020, include sales to the Power Grids business which is presented as discontinued operations and therefore these sales are not eliminated from total revenues.

(2) Due to rounding, numbers presented may not add to the totals provided.

($ in millions)	Three months ended March 31, 2021	2020
Operational EBITA:		
Electrification	511	318
Motion	289	230
Process Automation	155	144
Robotics & Discrete Automation	105	59
Corporate and Other		
– Non-core business activities	(22)	(11)
– Stranded corporate costs	–	(21)
– Corporate costs and intersegment elimination	(79)	(83)
Total	**959**	**636**
Acquisition-related amortization	(65)	(65)
Restructuring, related and implementation costs[1]	(35)	(40)
Changes in obligations related to divested businesses	(2)	–
Changes in pre-acquisition estimates	(6)	–
Gains and losses from sale of businesses	(3)	(1)
Fair value adjustment on assets and liabilities held for sale	–	(19)
Acquisition- and divestment-related expenses and integration costs	(10)	(11)
Other income/expense relating to the Power Grids joint venture	(17)	–
Foreign exchange/commodity timing differences in income from operations:		
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(48)	(74)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	2	(4)
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	34	(2)
Certain other non-operational items:		
Costs for divestment of Power Grids	(3)	(44)
Regulatory, compliance and legal costs	(2)	–
Business transformation costs[2]	(20)	(7)
Assets write downs/impairments & certain other fair value changes	18	–
Other non-operational items	(5)	4
Income from operations	**797**	**373**
Interest and dividend income	11	18
Interest and other finance expense	(55)	(22)
Non-operational pension (cost) credit	50	36
Income from continuing operations before taxes	**803**	**405**

(1) Amount includes implementation costs in relation to the OS program of $16 million for the three months ended March 31, 2020.

(2) Amount includes ABB Way process transformation costs of $15 million for the three months ended March 31, 2021.

	Total assets(1), (2)	
($ in millions)	March 31, 2021	December 31, 2020
Electrification	12,775	12,800
Motion	6,481	6,495
Process Automation	4,881	5,008
Robotics & Discrete Automation	4,658	4,794
Corporate and Other	11,425	11,991
Consolidated	**40,220**	**41,088**

(1) Total assets are after intersegment eliminations and therefore reflect third-party assets only.

(2) At March 31, 2021, and December 31, 2020, respectively, Corporate and Other includes $241 million and $282 million of assets in the Power Grids business which is reported as discontinued operations (see Note 3). In addition, at March 31, 2021, and December 31, 2020, Corporate and Other includes $1,678 million and $1,710 million, respectively, related to the equity investment in Hitachi ABB Power Grids Ltd (see Note 4).

Supplemental Reconciliations and Definitions

The following reconciliations and definitions include measures which ABB uses to supplement its Consolidated Financial Information (unaudited) which is prepared in accordance with United States generally accepted accounting principles (U.S. GAAP). Certain of these financial measures are, or may be, considered non-GAAP financial measures as defined in the rules of the U.S. Securities and Exchange Commission (SEC).

While ABB's management believes that the non-GAAP financial measures herein are useful in evaluating ABB's operating results, this information should be considered as supplemental in nature and not as a substitute for the related financial information prepared in accordance with U.S. GAAP. Therefore these measures should not be viewed in isolation but considered together with the Consolidated Financial Information (unaudited) prepared in accordance with U.S. GAAP as of and for the three months ended March 31, 2021.

On January 1, 2020, the Company adopted a new accounting update for the measurement of credit losses on financial instruments. Consistent with the method of adoption elected, comparable information has not been restated to reflect the adoption of this new standard and accounting update and continues to be measured and reported under the accounting standard in effect for those periods presented.

Comparable growth rates

Growth rates for certain key figures may be presented and discussed on a "comparable" basis. The comparable growth rate measures growth on a constant currency basis. Since we are a global company, the comparability of our operating results reported in U.S. dollars is affected by foreign currency exchange rate fluctuations. We calculate the impacts from foreign currency fluctuations by translating the current-year periods' reported key figures into U.S. dollar amounts using the exchange rates in effect for the comparable periods in the previous year.

Comparable growth rates are also adjusted for changes in our business portfolio. Adjustments to our business portfolio occur due to acquisitions, divestments, or by exiting specific business activities or customer markets. The adjustment for portfolio changes is calculated as follows: where the results of any business acquired or divested have not been consolidated and reported for the entire duration of both the current and comparable periods, the reported key figures of such business are adjusted to exclude the relevant key figures of any corresponding quarters which are not comparable when computing the comparable growth rate. Certain portfolio changes which do not qualify as divestments under U.S. GAAP have been treated in a similar manner to divestments. Changes in our portfolio where we have exited certain business activities or customer markets are adjusted as if the relevant business was divested in the period when the decision to cease business activities was taken. We do not adjust for portfolio changes where the relevant business has annualized revenues of less than $50 million.

The following tables provide reconciliations of reported growth rates of certain key figures to their respective comparable growth rate.

Comparable growth rate reconciliation by Business Area

	Q1 2021 compared to Q1 2020							
	Order growth rate				Revenue growth rate			
Business Area	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Electrification	13%	-5%	1%	**9%**	13%	-5%	3%	**11%**
Motion	1%	-5%	0%	**-4%**	10%	-4%	0%	**6%**
Process Automation	-6%	-5%	0%	**-11%**	-4%	-5%	0%	**-9%**
Robotics & Discrete Automation	4%	-7%	0%	**-3%**	27%	-8%	0%	**19%**
ABB Group	**6%**	**-5%**	**0%**	**1%**	**11%**	**-5%**	**1%**	**7%**

Regional comparable growth rate reconciliation

	Q1 2021 compared to Q1 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	10%	-8%	1%	**3%**	8%	-8%	1%	**1%**
The Americas	0%	0%	0%	**0%**	-2%	-1%	1%	**-2%**
Asia, Middle East and Africa	8%	-6%	0%	**2%**	35%	-7%	2%	**30%**
ABB Group	**6%**	**-5%**	**0%**	**1%**	**11%**	**-5%**	**1%**	**7%**

Order backlog growth rate reconciliation

	March 31, 2021 compared to March 31, 2020			
Business Area	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**
Electrification	7%	-4%	0%	**3%**
Motion	5%	-6%	0%	**-1%**
Process Automation	14%	-8%	0%	**6%**
Robotics & Discrete Automation	-6%	-6%	0%	**-12%**
ABB Group	**8%**	**-6%**	**0%**	**2%**

Other growth rate reconciliations

	Q1 2021 compared to Q1 2020			
	US$ (as reported)	**Foreign exchange impact**	**Portfolio changes**	**Comparable**
Service orders	-2%	-4%	0%	**-6%**
Service revenues	-2%	-5%	0%	**-7%**

Operational EBITA as % of operational revenues (Operational EBITA margin)

Definition

Operational EBITA margin

Operational EBITA margin is Operational EBITA as a percentage of Operational revenues.

Operational EBITA

Operational earnings before interest, taxes and acquisition-related amortization (Operational EBITA) represents Income from operations excluding:

- acquisition-related amortization (as defined below),
- restructuring, related and implementation costs,
- changes in the amount recorded for obligations related to divested businesses occurring after the divestment date (changes in obligations related to divested businesses),
- changes in estimates relating to opening balance sheets of acquired businesses (changes in pre-acquisition estimates),
- gains and losses from sale of businesses (including fair value adjustment on assets and liabilities held for sale),
- acquisition- and divestment-related expenses and integration costs,
- other income/expense relating to the Power Grids joint venture,
- certain other non-operational items, as well as
- foreign exchange/commodity timing differences in income from operations consisting of: (a) unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives), (b) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (c) unrealized foreign exchange movements on receivables/payables (and related assets/liabilities).

Certain other non-operational items generally includes certain regulatory, compliance and legal costs, certain asset write downs/impairments (including impairment of goodwill) and certain other fair value changes, as well as other items which are determined by management on a case-by-case basis.

Operational EBITA is our measure of segment profit but is also used by management to evaluate the profitability of the Company as a whole.

Acquisition-related amortization

Amortization expense on intangibles arising upon acquisitions.

Restructuring, related and implementation costs

Restructuring, related and implementation costs consists of restructuring and other related expenses, as well as internal and external costs relating to the implementation of group-wide restructuring programs.

Other income/expense relating to the Power Grids joint venture

Other income/expense relating to the Power Grids joint venture consists of amounts recorded in Income from continuing operations before taxes relating to the divested Power Grids business including the income/loss under the equity method for the investment in Hitachi ABB Power Grids Ltd. (Hitachi ABB PG), amortization of deferred brand income as well as changes in value of other obligations relating to the divestment.

Operational revenues

The Company presents Operational revenues solely for the purpose of allowing the computation of Operational EBITA margin. Operational revenues are total revenues adjusted for foreign exchange/commodity timing differences in total revenues of: (i) unrealized gains and losses on derivatives, (ii) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (iii) unrealized foreign exchange movements on receivables (and related assets). Operational revenues are not intended to be an alternative measure to Total revenues, which represent our revenues measured in accordance with U.S. GAAP.

Reconciliation

The following tables provide reconciliations of consolidated Operational EBITA to Net Income and Operational EBITA Margin by business.

Reconciliation of consolidated Operational EBITA to Net Income

	Three months ended March 31,	
($ in millions)	**2021**	**2020**
Operational EBITA	**959**	**636**
Acquisition-related amortization	(65)	(65)
Restructuring, related and implementation costs[1]	(35)	(40)
Changes in obligations related to divested businesses	(2)	–
Changes in pre-acquisition estimates	(6)	–
Gains and losses from sale of businesses	(3)	(1)
Fair value adjustment on assets and liabilities held for sale	–	(19)
Acquisition- and divestment-related expenses and integration costs	(10)	(11)
Other income/expense relating to the Power Grids joint venture	(17)	–
Certain other non-operational items	(12)	(47)
Foreign exchange/commodity timing differences in income from operations	(12)	(80)
Income from operations	**797**	**373**
Interest and dividend income	11	18
Interest and other finance expense	(55)	(22)
Non-operational pension (cost) credit	50	36
Income from continuing operations before taxes	**803**	**405**
Income tax expense	(252)	(79)
Income from continuing operations, net of tax	**551**	**326**
Income (loss) from discontinued operations, net of tax	(28)	54
Net income	**523**	**380**

(1) Amounts include implementation costs in relation to the OS program of $16 million for the three months ended March 31, 2020.

Reconciliation of Operational EBITA margin by business

($ in millions, unless otherwise indicated)	Three months ended March 31, 2021 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
Total revenues	**3,140**	**1,667**	**1,407**	**853**	**(166)**	**6,901**
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	29	27	12	5	4	**77**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	–	–	(2)	(1)	–	**(3)**
Unrealized foreign exchange movements on receivables (and related assets)	(19)	(8)	(5)	(7)	(2)	**(41)**
Operational revenues	**3,150**	**1,686**	**1,412**	**850**	**(164)**	**6,934**
Income (loss) from operations	**440**	**265**	**147**	**82**	**(137)**	**797**
Acquisition-related amortization	29	13	1	20	2	**65**
Restructuring, related and implementation costs	17	1	3	5	9	**35**
Changes in obligations related to divested businesses	–	–	–	–	2	**2**
Changes in pre-acquisition estimates	6	–	–	–	–	**6**
Gains and losses from sale of businesses	3	–	–	–	–	**3**
Acquisition- and divestment-related expenses and integration costs	6	3	1	–	–	**10**
Other income/expense relating to the Power Grids joint venture	–	–	–	–	17	**17**
Certain other non-operational items	(6)	–	–	–	18	**12**
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	25	14	10	1	(2)	**48**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	–	–	(1)	–	(1)	**(2)**
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(9)	(7)	(6)	(3)	(9)	**(34)**
Operational EBITA	**511**	**289**	**155**	**105**	**(101)**	**959**
Operational EBITA margin (%)	**16.2%**	**17.1%**	**11.0%**	**12.4%**	**n.a.**	**13.8%**

In the three months ended March 31, 2021, Certain other non-operational items in the table above includes the following:

($ in millions, unless otherwise indicated)	Three months ended March 31, 2021 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Consolidated
Certain other non-operational items:						
Costs for divestment of Power Grids	–	–	–	–	3	**3**
Regulatory, compliance and legal costs	–	–	–	–	2	**2**
Asset write downs/impairments and certain other fair value changes	(9)	–	–	–	(9)	**(18)**
Business transformation costs(1)	3	–	–	–	17	**20**
Other non-operational items	(1)	–	1	–	5	**5**
Total	**(7)**	**–**	**1**	**–**	**18**	**12**

(1) Amounts include ABB Way process transformation costs of $15 million for the three months ended March 31, 2021.

($ in millions, unless otherwise indicated)	Three months ended March 31, 2020 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
Total revenues	**2,773**	**1,510**	**1,462**	**671**	**(200)**	**6,216**
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	38	10	29	6	3	**86**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	–	8	–	(2)	**7**
Unrealized foreign exchange movements on receivables (and related assets)	(29)	(13)	(20)	(8)	2	**(68)**
Operational revenues	**2,783**	**1,507**	**1,479**	**669**	**(197)**	**6,241**
Income (loss) from operations	**199**	**191**	**124**	**32**	**(173)**	**373**
Acquisition-related amortization	28	13	1	19	4	**65**
Restructuring, related and implementation costs	15	2	3	7	13	**40**
Gains and losses from sale of businesses	1	–	–	–	–	**1**
Fair value adjustment on assets and liabilities held for sale	19	–	–	–	–	**19**
Acquisition- and divestment-related expenses and integration costs	11	–	–	–	–	**11**
Certain other non-operational items	–	5	–	1	41	**47**
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	42	19	18	2	(7)	**74**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	–	–	6	–	(2)	**4**
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	3	–	(8)	(2)	9	**2**
Operational EBITA	**318**	**230**	**144**	**59**	**(115)**	**636**
Operational EBITA margin (%)	**11.4%**	**15.3%**	**9.7%**	**8.8%**	**n.a.**	**10.2%**

In the three months ended March 31, 2020, Certain other non-operational items in the table above includes the following:

($ in millions, unless otherwise indicated)	Three months ended March 31, 2020 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Consolidated
Certain other non-operational items:						
Costs for planned divestment of Power Grids	–	–	–	–	44	**44**
Business transformation costs	–	4	–	1	2	**7**
Other non-operational items	–	1	–	–	(5)	**(4)**
Total	**–**	**5**	**–**	**1**	**41**	**47**

Net debt

Definition

Net debt

Net debt is defined as Total debt less Cash and marketable securities.

Total debt

Total debt is the sum of Short-term debt and current maturities of long-term debt, and Long-term debt.

Cash and marketable securities

Cash and marketable securities is the sum of Cash and equivalents, Restricted cash (current and non-current) and Marketable securities and short-term investments.

Reconciliation

($ in millions)	March 31, 2021	December 31, 2020
Short-term debt and current maturities of long-term debt	1,336	1,293
Long-term debt	5,619	4,828
Total debt (gross debt)	**6,955**	**6,121**
Cash and equivalents	3,466	3,278
Restricted cash - current	72	323
Marketable securities and short-term investments	1,884	2,108
Restricted cash - non-current	300	300
Cash and marketable securities	**5,722**	**6,009**
Net debt	**1,233**	**112**

Net debt/EBITDA Ratio

Definition

Net debt/EBITDA

Net debt/EBITDA is defined as Net debt divided by EBITDA.

EBITDA

EBITDA is defined as Income from operations for the trailing twelve months preceding the balance sheet date before depreciation and amortization for the same trailing twelve-month period.

Reconciliation

($ in millions, unless otherwise indicated)	March 31, 2021	March 31, 2020
Income from operations for the three months ended		
March 31, 2021/2020	**797**	373
December 31, 2020/2019	578	648
September 30, 2020/2019	71	577
June 30, 2020/2019	571	123
Depreciation and Amortization for the three months ended		
March 31, 2021/2020	227	227
December 31, 2020/2019	229	246
September 30, 2020/2019	231	235
June 30, 2020/2019	228	249
EBITDA	**2,932**	**2,678**
Net debt (as defined above)	**1,233**	**6,221**
Net debt / EBITDA	**0.4**	**2.3**

($ in millions, unless otherwise indicated)	June 30, 2020
Income from operations for the three months ended	
June 30, 2020	571
March 31, 2020	373
December 31, 2019	648
September 30, 2019	577
Depreciation and Amortization for the three months ended	
June 30, 2020	228
March 31, 2020	227
December 31, 2019	246
September 30, 2019	235
EBITDA	**3,105**
Net debt (as defined above)	**7,615**
Net debt / EBITDA	**2.5**

Net debt/Equity Ratio

Definition

Net debt/Equity

Net debt/Equity is defined as Net debt divided by Equity.

Equity

Equity is defined as Total stockholders' equity.

Reconciliation

($ in millions, unless otherwise indicated)	Q1 2021	Q1 2020	Q2 2020	Q3 2020	Q4 2020
Total stockholders equity	14,059	12,032	12,575	17,030	15,999
Net debt (as defined above)	1,233	6,221	7,615	(935)	112
Net debt / Equity	**0.09**	**0.52**	**0.61**	**-0.05**	**0.01**

Net working capital as a percentage of revenues

Definition

Net working capital as a percentage of revenues

Net working capital as a percentage of revenues is calculated as Net working capital divided by Adjusted revenues for the trailing twelve months.

Net working capital

Net working capital is the sum of (i) receivables, net, (ii) contract assets, (iii) inventories, net, and (iv) prepaid expenses; less (v) accounts payable, trade, (vi) contract liabilities, and (vii) other current liabilities (excluding primarily: (a) income taxes payable, (b) current derivative liabilities, (c) pension and other employee benefits, (d) payables under the share buyback program and (e) liabilities related to the divestment of the Power Grids business); and including the amounts related to these accounts which have been presented as either assets or liabilities held for sale but excluding any amounts included in discontinued operations.

Adjusted revenues for the trailing twelve months

Adjusted revenues for the trailing twelve months includes total revenues recorded by ABB in the twelve months preceding the relevant balance sheet date adjusted to eliminate revenues of divested businesses and the estimated impact of annualizing revenues of certain acquisitions which were completed in the same trailing twelve-month period.

Reconciliation

($ in millions, unless otherwise indicated)	March 31, 2021	March 31, 2020
Net working capital:		
Receivables, net	6,663	6,288
Contract assets	1,044	1,038
Inventories, net	4,475	4,358
Prepaid expenses	241	266
Accounts payable, trade	(4,453)	(4,170)
Contract liabilities	(1,855)	(1,665)
Other current liabilities[(1)]	(3,211)	(2,797)
Net working capital	**2,904**	**3,318**
Total revenues for the three months ended:		
March 31, 2021 / 2020	6,901	6,216
December 31, 2020 / 2019	7,182	7,068
September 30, 2020 / 2019	6,582	6,892
June 30, 2020 / 2019	6,154	7,171
Adjustment to annualize/eliminate revenues of certain acquisitions/divestments	–	(404)
Adjusted revenues for the trailing twelve months	**26,819**	**26,943**
Net working capital as a percentage of revenues (%)	**10.8%**	**12.3%**

(1) Amounts exclude $710 million and $717 million at March 31, 2021 and 2020, respectively, related primarily to (a) income taxes payable, (b) current derivative liabilities, (c) pension and other employee benefits and (d) liabilities related to the divestment of the Power Grids business.

Free cash flow conversion to net income

Definition

Free cash flow conversion to net income

Free cash flow conversion to net income is calculated as free cash flow divided by Adjusted net income attributable to ABB

Adjusted net income attributable to ABB

Adjusted net income attributable to ABB is calculated as net income attributable to ABB adjusted for: (i) impairment of goodwill, (ii) losses from extinguishment of debt, and (iii) gain on the sale of the Power Grids business included in discontinued operations.

Free cash flow

Free cash flow is calculated as net cash provided by operating activities adjusted for: (i) purchases of property, plant and equipment and intangible assets, and (ii) proceeds from sales of property, plant and equipment.

Free cash flow for the trailing twelve months

Free cash flow for the trailing twelve months includes free cash flow recorded by ABB in the twelve months preceding the relevant balance sheet date.

Net income for the trailing twelve months

Net income for the trailing twelve months includes net income recorded by ABB (as adjusted) in the twelve months preceding the relevant balance sheet date.

Free cash flow conversion to net income

	Twelve months to	
($ in millions, unless otherwise indicated)	March 31, 2021	December 31, 2020
Net cash provided by operating activities – continuing operations	**2,794**	**1,875**
Adjusted for the effects of continuing operations:		
Purchases of property, plant and equipment and intangible assets	(673)	(694)
Proceeds from sale of property, plant and equipment	111	114
Free cash flow from continuing operations	**2,232**	**1,295**
Net cash provided by (used in) operating activities – discontinued operations	**19**	**(182)**
Adjusted for the effects of discontinued operations:		
Purchases of property, plant and equipment and intangible assets	(75)	(108)
Proceeds from sale of property, plant and equipment	–	1
Free cash flow	**2,176**	**1,006**
Adjusted net income attributable to ABB(1)	**628**	**478**
Free cash flow conversion to net income	**346%**	**210%**

(1) Adjusted net income attributable to ABB for the year ended December 31, 2020, is adjusted to exclude goodwill impairment charges of $311 million, loss from extinguishment of debt of $162 million and the gain on the sale of the Power Grids business included in discontinued operations of $5,141 million.

Reconciliation of the trailing twelve months to March 31, 2021

	Continuing operations			Discontinued operations			
($ in millions)	Net cash provided by continuing operating activities	Purchases of property, plant and equipment and intangible assets	Proceeds from sale of property, plant and equipment	Net cash provided by discontinued operating activities	Purchases of property, plant and equipment and intangible assets	Proceeds from sale of property, plant and equipment	Adjusted net income attributable to ABB(1)
Q2 2020	648	(140)	4	32	(60)	–	319
Q3 2020	398	(129)	41	10	–	–	(479)
Q4 2020	1,225	(262)	46	(43)	(15)	–	262
Q1 2021	523	(142)	20	20	–	–	526
Total for the trailing twelve months to March 31, 2021	**2,794**	**(673)**	**111**	**19**	**(75)**	**–**	**628**

(1) Adjusted net income attributable to ABB for Q3 2020 is adjusted to exclude goodwill impairment charges of $311 million, and the gain on the sale of the Power Grids business included in discontinued operations of $5,320 million. Q4 2020 is adjusted to exclude the loss from extinguishment of debt of $162 million and the adjustment to the gain on the sale of Power Grids of $179 million. Q1 2021 is adjusted to exclude the adjustment to the gain on the sale of Power Grids of $24 million.

Net finance expenses

Definition
Net finance expenses is calculated as Interest and dividend income less Interest and other finance expense and Losses from extinguishment of debt.

Reconciliation

	Three months ended March 31,	
($ in millions)	**2021**	**2020**
Interest and dividend income	11	18
Interest and other finance expense	(55)	(22)
Net finance expenses	**(44)**	**(4)**

Book-to-bill ratio

Definition
Book-to-bill ratio is calculated as Orders received divided by Total revenues.

Reconciliation

	Three months ended March 31,					
	2021			2020		
($ in millions, unless otherwise indicated)	**Orders**	**Revenues**	**Book-to-bill**	**Orders**	**Revenues**	**Book-to-bill**
Electrification	3,531	3,140	**1.12**	3,121	2,773	**1.13**
Motion	1,917	1,667	**1.15**	1,901	1,510	**1.26**
Process Automation	1,656	1,407	**1.18**	1,757	1,462	**1.20**
Robotics & Discrete Automation	841	853	**0.99**	811	671	**1.21**
Corporate and Other *(incl. intersegment eliminations)*	(189)	(166)	**n.a.**	(244)	(200)	**n.a.**
ABB Group	**7,756**	**6,901**	**1.12**	**7,346**	**6,216**	**1.18**

ABB Ltd

Corporate Communications
P.O. Box 8131
8050 Zurich
Switzerland
Tel: +41 (0)43 317 71 11

www.abb.com